LE COPY

VOLUME I

TRANSCRIPT OF RECORD

Supreme Court of the United States

OCTOBER TERM, 1960

No. 501

BINKS MANUFACTURING CO.,
PETITIONER,

vs.

RANSBURG ELECTRO-COATING CORPORATION.

ON WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS
FOR THE SEVENTH CIRCUIT

PETITION FOR CERTIORARI FILED OCTOBER 24, 1960

CERTIORARI GRANTED DECEMBER 19, 1960

INDEX.

Substituted Counterclaim 1

Substituted Supplemental Counterclaim 3

Plaintiff's Substituted Answer to Substituted Counterclaim 5

Plaintiff's Substituted Answer to Substituted Supplemental Counterclaim 16

Plaintiff's Substituted Cross-Counterclaim 31

Defendant's Substituted Answer to Substituted Cross-Counterclaim 41

Interrogatories and Answers 46

Exhibit A—Licensees of Defendant which have licenses under both the air and airless process (in answer to Plaintiff's Interrogatory No. 2(a)).. 81

Exhibit B—Identification of all licenses granted by Defendant up to the date of the filing of the Complaint (in answer to Plaintiff's Interrogatory No. 3(c)) 85

Exhibit C—Identification of Defendant's licensees whose agreements have been modified (in answer to Plaintiff's Interrogatory No. 7(c)) 112

Exhibits D-23, D-25, D-26, D-29, and D-35—Five of Defendant's license agreement forms from among the forty-five forms supplied in answer to Plaintiff's Interrogatory No. 8 114

Exhibit E—List of Defendant's licensees identifying the specific license form applicable to each licensee (in answer to Plaintiff's Interrogatory No. 33) 152

Exhibit F—Patents and patent applications identified in certain of Defendant's licenses (in answer to Plaintiff's Interrogatory No. 34) 178
Exhibit G—Record of shipment of typical equipment supplied by Defendant to a licensee (in answer to Plaintiff's Interrogatory No. 36) 182
Exhibit H—Identification of licenses taken over by Defendant from its predecessor (in answer to Plaintiff's Interrogatory No. 37(b) (c) (d) and (e)) 184
Exhibit K—Identification of foreign licensees of Defendant (in answer to Plaintiff's Interrogatory No. 90(b)) 192
Exhibit M—List of Defendant's agreements under which articles were painted for the U. S. Government (in answer to Plaintiff's Interrogatory No. 190 (b) and (c)) 193
Request for Admissions and Answers 194
Memorandum Opinion on Defendant's Motion for Summary Judgment 219
Order denying motion for Summary Judgment... 226
Stipulation re: Patents and Exhibits 226
Order for production of documents 228
Stipulation re: Publication, etc. 230
Stipulation re: Letter, etc. 231
Letter Mar. 4, 1955, Trageser to Amstus 232
Stipulation re: Chart, etc. 233
Stipulation re: certain Exhibits 235
Stipulation re: Defendant's knowledge of Prior Art... 236
Letter Feb. 19, 1948, Ransburg to Simmons 237
Letter Sept. 21, 1953, Stellman to Ransburg 238
List of Patents 239
Stipulation regarding Patent Rights 243

TRANSCRIPT OF PROCEEDINGS.

Colloquy 247, 397, 412

Witnesses for Defendant.

Testimony of:
Darrah, William (Deposition of) 394
Howarth, Donald Colin 391
Miller, Emery P. 250
Ransburg, Harold 408, 419
Plaintiff's Exhibit KKKK—Deposition Edwin M. Ransburg 490
Plaintiff's Exhibit LLLL—Deposition of Harold P. Ransburg 535
Plaintiff's Exhibit MMMM—Deposition of Emery P. Miller 552
Plaintiff's Exhibit NNNN—Deposition of Donald C. Howarth 570
Deposition of Milton F. Pleva 610
Deposition of Elmer Houlberg 628
Deposition of Paul Rothe 634
Deposition of Clarence E. Wallin 636
Deposition of Andrew G. Hubbard 646
Deposition of Clarence Goltermann 650
Plaintiff's Exhibit OOOO—Deposition of William A. Darrah 652
Plaintiff's Exhibit LLLLL—Deposition of Burke Bernard Roche 672
Deposition of John W. Baur 686
Deposition of Benjamin J. Hedger 694
Plaintiff's Exhibit MMMMM—Deposition of James H. Rice 698

PLAINTIFF'S EXHIBITS.

V-1—Page 4 of Laboratory Notebook 721
V-2—Page 9 of Laboratory Notebook 722
V-3—Page 11 of Laboratory Notebook 723
V-4—Page 12 of Laboratory Notebook 724
V-5—Page 13 of Laboratory Notebook 725
V-6—Sheet dated May 11, 1944 of Laboratory Notebook 726
V-7—Page 15 of Laboratory Notebook 727
R-2—Memo of March 22, 1951 of Gregg Ransburg 729
S—Letter July 15, 1953, Ransburg to Acme 730
Z-1—Letter May 27, 1953, Ransburg to Ainsworth 731
BB-1—Letter May 9, 1955, Maxwell to All-Steel Equipment, Inc. 732
FF-1—Letter Sept. 22, 1953, Maxwell to All-Steel Equipment Co. 733
FF-3—Letter May 21, 1954, Maxwell to General Electric Co. 734
FF-5—Letter March 20, 1952, Stone to General Electric Co. 735
FF-6—Letter March 4, 1952, Mailly to Ransburg 736
FF-9—Letter Oct. 4, 1955, Hughes to Body 736
FF-10—Letter July 28, 1954, Miller to General Electric Co. 738
II-1—Letter Oct. 19, 1956, Johnson to Wadsworth 740
II-2—Memo, Oct. 24, 1955, Re: General Electric Co., Mattoon, Ill. 741
II-4—Hughes Memo re: General Electric, dated Dec. 16, 1953 743
II-5—Letter Aug. 20, 1951, Creps to Air-Way Appliance Corp. 744
II-6—Letter Apr. 30, 1956, Miller to Creps 745
II-7—Letter May 7, 1953, Johnson to Ransburg 747
KK—Sales Bulletin of January 19, 1953 751

NN—Sales Bulletin No. 100, dated May 27, 1953—pricing schedule 753
OO—Pricing schedule, dated Aug. 5, 1952 756
SS—Assignment of Pugh Patent to Ransburg 762
TT—Assignment between Ransburg and Brush Development Co. 765
UU—Agreement between Ransburg and Behr-Manning Corp. 771
VV—Agreement between Ransburg and Research Corporation 779
XX—Miller Memo to Patent Attorneys 790
ZZ-7—Agreement between Ransburg and Eastern Venetian Blind Co. 793
ZZ-8—Agreement between Ransburg and DuPont 800
GGG—Drawing from Ransburg Service Manuel for No. 1 Process 807
III-1—Sales Bulletin No. 132, dated June 15, 1954 809
III-3—Price Work Sheet, dated Nov. 3, 1954 811
III-4—Letter Nov. 3, 1954, Howarth to Zadoff 813
JJJ-2—Pricing Guide for No. 2 Spray Process, dated July 15, 1953 816
KKK—Letter May 27, 1953, Ransburg to General Electric Co. 819
LLL-1—Letter Mar. 23, 1954, Maxwell to Webster-Chicago Corp. 822
LLL-2—Letter May 27, 1953, Ransburg to Webster-Chicago Corp. 824
LLL-3—Letter June 3, 1953, Webster-Chicago Corp. to Ransburg 825
LLL-4—Memo of June 26, 1953, Pleva to Ransburg 826
NNN—Letter June 17, 1955, Ransburg to Westinghouse Electric Corp. 827
OOO—Letter July 26, 1955, Miller to Chicago Rawhide Mfg. Co. 828

PPP-1—Chicago Rawhide Purchase Order—No. 100410, dated Nov. 1, 1955 832
PPP-2—Letter Nov. 4, 1955, Downer to Chicago Rawhide 834
PPP-3—Ransburg Drawing No. 231,349, dated Aug. 2, 1955 835
SSS—Agreement between Ransburg and Hotpoint, Inc. 837
EEEE—Booklet entitled—"Ransburg Coating Processes" dealing with the No. 1 system and the detearing process 847
IIII—Early brochure on the Ransburg No. 2 process.. 861
PPPP—Correspondence with Behr-Manning Corporation 862
TTTT—Letter Apr. 6, 1955, Miller to A. P. Parts Corporation 876
UUUU—Booklet entitled "Ransburg No. 2 Process," Copyright 1956, 1957 877
VVVV—Letter Aug. 14, 1951, Creps to Cleveland Welding Co. 881
WWWW—Letter July 9, 1951, Maxwell to Aluminum Goods Mfg. Co. 882
XXXX—Letter Jan. 18, 1954, Ransburg to Avco Mfg. Corp. 886
YYYY—Call Report dated Mar. 11, 1949, signed by Mr. Chutter 892
ZZZZ-1—Letter July 3, 1956, Baur to Ransburg..... 894
ZZZZ-2—Letter July 12, 1956, Ransburg to Binks Mfg Co. 895
ZZZZ-3—Form for Electro-Spray Agreement..... 896
ZZZZ-5—Form for Ransburg Electro-Spray Agreement 899
ZZZZ-7—Letter July 25, 1956, Baur to Ransburg..... 904
ZZZZ-8—Binks Drawing—SK 661 905
ZZZZ-9—Letter Aug. 16, 1956, Ransburg to Binks Mfg. Co. 907
ZZZZ-10—Letter Aug. 22, 1956, Baur to Ransburg.... 908

ZZZZ-11—Letter Aug. 31, 1956, Ransburg to Binks Mfg. Co. 909
ZZZZ-12—Letter Sept. 12, 1956, Baur to Ransburg 910
ZZZZ-13—Letter Sept. 21, 1956, Ransburg to Binks Mfg. Co. 911
AAAAA—Letter Dec. 11, 1956, Ransburg to Allegheny Ludlum Steel Corp. 912
CCCCC—Letter May 16, 1952, Ransburg to General Electric Co. 917
GGGGG—Article by Boys appearing in "The London, Edinburgh and Dublin Philosophical Magazine" Vol. 23, page 490, 1887 918
Article by Zeleny appearing in Proceedings of Cambridge Philosophical Society—Vol. 18, pages 71-83 (1915) 921
Article by Zeleny appearing in "The Physical Review"—2nd. Ser. Vol. X, No. 1, pages 1-6 (July 1917) 934
Article by Nolan and O'Keeffe appearing in Proceedings of Royal Irish Academy, Vol. XXXIX, page 21 (1929) 941
NNNNN—Expenses of Midwest Research Institute ... 943
QQQQQ—Midwest Research Institute proposal R,230 .. 945
RRRRR—Midwest Research Institute Progress Report No. 1 951
XXXXX—Letter Oct. 17, 1956, Herman E. Miller to Emery P. Miller 955

DEFENDANT'S EXHIBITS.

No 10-A—Photo of physical exhibit No. 9 showing side view 957
No. 10-D—Photo of physical exhibit No. 9 showing paint streaming from emitter 958
No. 17-A—Chart of head atomizing unit 959

No. 17-B—Chart of Reciprocating disk atomizing unit . . 960
No. 17-C—Chart of tilting disk atomizing unit 961
No. 18-A—Photo of SK-661 emitting paint 962
No. 18-B—Photo of SK-661 emitting paint 963
No. 41—Letter Oct. 1, 1958, Downer to Avco Mfg. Co... 965
Letter Oct. 7, 1958, Redfield to Downer 966
Letter Oct. 13, 1958, Downer to Redfield 967
Findings of Fact 968
Conclusions of Law 1014
Order amending Conclusion of Law No. 9..... 1016
Judgment, entered June 18, 1959 1017
Notice of Appeal 1019
Order extending time 1020

UNITED STATES LETTERS PATENT.

No. 2,685,536—W. A. Starkley, et al., Aug. 3, 1954.....1021
No. 2,794,417—W. A. Starkley, et al., June 4, 1957.....1029
Re. No. 22419—J. S. Smyser, Jan. 11, 1944.....1037
No. 1,360,654—E. E. Littlefield, Nov. 30, 1920.....1049
No. 1,475,995—L. Heis, et al., Dec. 4, 1923.....1057
No. 1,854,475—E. E. Littlefield, Apr. 19, 1932.....1067
No. 1,855,869—E. Pugh, Apr. 26, 1932.....1073
No. 1,958,406—W. A. Darrah, May 15, 1934.....1081
No. 2,221,338—H. A. Wintermute, Nov. 12, 1940.....1087
No. 2,247,963—H. P. Ransburg, et al., July 1, 1941.....1095
No. 2,270,341—H. P. Ransburg, Jan. 20, 1942.....1105
No. 2,359,476—C. K. Gravley, Oct. 3, 1944.....1113
No. 2,417,798—H. P. Ransburg, et al., Mar. 18, 1947....1123
No. 2,651,287—R. H. Turner, Sept. 8, 1953.....1135
No. 2,658,009—E. M. Ransburg, Nov. 3,1953.....1141

	Original	Print
Proceedings in the United States Court of Appeals for the Seventh Circuit		
Appendix to brief for plaintiff-appellant, Volumes I and II, see separate indices		
Appendix to brief for defendant-appellee, Volume III, see separate index		
Record from the United States District Court for the Southern District of Indiana, Indianapolis Division	511	511
Excerpt of transcript of testimony of Emery P. Miller on redirect examination	512	511
Plaintiff's Exhibit IIIII—Judgment in the case of U.S. v. Minnesota Mining and Manufacturing Co. et al., C.A. 8119 filed in the U.S.D.C. for the District of Massachusetts, dated November 6, 1950	514	512
Plaintiff's Exhibit JJJJJ—United States Letters Patent	536	533

Number	*Issued*	*Title*		
RE20,660	Feb. 22, 1938	Method of Coating and Apparatus Therefor and Product	536	533
2027087	Jan. 7, 1936	Abrasive Sheet and Process of Making the Same	548	545
2027308	Jan. 7, 1936	Manufacture of Abrasive Articles	551	548
2027309	Jan. 7, 1936	Abrasive Material	554	551
2082182	June 1, 1937	Manufacture of Abrasive Articles	562	559
2245301	June 10, 1941	Manufacture of Abrasive Articles	565	562
2279361	April 14, 1942	Electrostatic Coating Process	569	566
2287837	June 30, 1942	Method and Apparatus for Applying Coating Materials	574	571
2318570	May 4, 1943	Manufacture of Abrasives	584	581
2318571	May 4, 1943	Manufacture of Abrasives	600	597
2328577	Sept. 7, 1943	Process and Apparatus for Grading and for Coating with Comminuted Materials	614	611
2376342	May 22, 1945	Manufacture of Abrasives	625	622

	Original	Print
Record from the United States District Court for the Southern District of Indiana, Indianapolis Division—Continued		
Defendant's Exhibit 5A (Excerpts)	637	634
Page 10 of Applicant's Amendment filed June 28, 1945	637	634
Pages 14 and 29 of Applicant's Board of Appeals Brief filed January 5, 1951	638	635
Defendant's Exhibit 5B (Excerpts)	640	637
Affidavit of Gilbert Isgrigg filed March 20, 1953	640	637
Affidavit of Donald C. Howarth filed March 20, 1953	643	640
Page 15 of Applicant's Board of Appeals Brief filed May 25, 1953	646	643
Page 5 of Board of Appeals decision dated December 18, 1953	647	644
Defendant's Exhibit 6 (Excerpt)	649	645
Amendment C, filed August 3, 1956	649	645
Defendant's Exhibit 21—United States Letters Patent	652	649
Number *Issued* *Title*		
1854071 April 12, 1932 Method of Manufacturing Abrasives	652	649
2047525 July 14, 1936 Insulating Method for Electrical and Thermo-Technical Purposes, and Apparatus for Accomplishing the Same	657	654
2087260 July 20, 1937 Homogenous Piled Surface	662	659
2152077 March 28, 1939 Production of Piled Surfaces in Pattern Form	666	663
2166385 July 18, 1939 Determining Electrical Characteristics	676	673
2173032 Sept. 12, 1939 Production of Pile Surfaced Materials	680	677
2173078 Sept. 12, 1939 Production of Piled Surfaces	690	687
2174328 Sept. 26, 1939 Piled Surface in Pattern Form	697	694
2217126 Oct. 8, 1940 Piled Surface in Pattern Form	702	699
2218445 Oct. 15, 1940 Production of Pile Surface Materials	711	708
2222539 Nov. 19, 1940 Method of and Apparatus for Making Pile-Surfaced Sheets	715	712
2223476 Dec. 3, 1940 Method for Making Pile Fabrics	721	718

			Original	Print
Record from the United States District Court for the Southern District of Indiana, Indianapolis Division—Continued				
Defendant's Exhibit 21—United States Letters Patent—Continued				
Number	*Issued*	*Title*		
2231324	Feb. 11, 1941	Apparatus for and Method of Making Hat Bats	728	725
2248064	July 8, 1941	Coating, Particularly for Manufacture of Abrasives	732	729
2248853	July 8, 1941	Abrasive Article and Method of Making Same	748	745
2281558	May 5, 1942	Manufacture of Abrasive Articles and Apparatus Therefor	763	760
2356489	Aug. 22, 1944	Apparatus for Coating	774	771
2370636	March 6, 1945	Manufacture of Abrasives	787	784
2371605	March 20, 1945	Coating, Particularly for Manufacture of Abrasives	800	797
2376343	May 22, 1945	Manufacture of Abrasives	815	812
2376922	May 29, 1945	Method of and Apparatus for Making Pile Fabrics	824	821
2447374	Aug. 17, 1948	Method of Applying Coating Materials	833	830
Opinion, Castle, J.			841	838
Judgment			855	852
Clerk's certificate (omitted in printing)			856	852
Order allowing certiorari			857	853

SUMMARY OF PERTINENT DOCKET ENTRIES.

Date	Entry

October 11, 1956—Complaint filed and Summons issued.

October 26, 1956—Plaintiff files amendment to complaint. Plaintiff files Interrogatories Nos. 1 to 32 to Defendant.

October 30, 1956—Defendant files Notice of Taking depositions.

November 8, 1956—Defendant files Interrogatories Nos. 1 to 9 to Plaintiff.

November 15, 1956—Defendant files answers to Plaintiff's Interrogatories Nos. 1 to 32.

November 23, 1956—Plaintiff files answers to Interrogatories 1 to 9.

December 3, 1956—Defendant files Answer and Counterclaim.

December 10, 1956—Plaintiff files Answer to Counterclaim and files cross-counterclaim. Plaintiff files motion for order of Dismissal by Court under Rule 41(a) (2).

December 26, 1956—Plaintiff files Interrogatories Nos. 33 to 59.

January 14, 1957—Defendant files answer to Interrogatories Nos. 33 to 59.

January 29, 1957—Court sustains Plaintiff's motion for order of dismissal of its Complaint; Complaint ordered dismissed. Court grants Plaintiff leave to five Cross-counterclaim tendered to the Court with the above motion on December 10, 1956. Plaintiff files Cross-counterclaim.

February 18, 1957—Defendant files answer to Plaintiff's Cross-counterclaim.

August 28, 1957—Plaintiff files Notice of taking depositions.

November 20, 1957—Defendant files Interrogatories Nos. 10 to 24 inclusive to Plaintiff.

Date	Entry

December 10, 1957—Plaintiff files Interrogatories Nos. 60 to 88 to Defendant.

December 13, 1957—Plaintiff files answer to Defendant's Interrogatories 10 to 24.

January 16, 1958—Defendant files answers to Interrogatories Nos. 60 to 88.

February 19, 1958—Plaintiff files motion for leave to amend answer to Counterclaim and Cross-counterclaim.

February 20, 1958—Defendant files depositions of Roche, Baur, and Hedger.

March 5, 1958—Court grants Plaintiff leave to amend answer to Counterclaim and Cross-counterclaim. Plaintiff files amendment to Plaintiff's Answer to Counterclaim and its Cross-counterclaim.

March 31, 1958—Defendant files Supplement to Defendant's answer to Plaintiff's Cross-counterclaim.

April 3, 1958—Plaintiff files Interrogatories Nos. 89 to 92 to Defendant.

April 18, 1958—Defendant files Answers to Interrogatories Nos. 89 to 92 inclusive of Plaintiff.

May 14, 1958—Plaintiff files Requests for Admissions Nos. 1 to 24.

May 26, 1958—Defendant files Answers to Plaintiff's Requests for Admissions. Defendant files Motion for Summary Judgment with an affidavit of E. M. Ransburg.

June 9, 1958—Plaintiff files Motion for order for production of documents under Rule 34.

June 11, 1958—Plaintiff files Answer to Defendant's Supplemental Counterclaim.

June 13, 1958—Plaintiff files depositions of Howarth, Pleva, Houlberg, Rothe, Wallin, Hubbard and Goltermann.

Date	Entry

June 18, 1958—Plaintiff files additional Interrogatories Nos. 93 to 133. Plaintiff files Requests for Admissions Nos. 25 to 78.

June 30, 1958—Defendant files answers to Plaintiff's further Requests for Admissions Nos. 25 to 78.

July 1, 1958—Plaintiff files depositions of Downer, Miller, E. M. Ransburg and H. P. Ransburg.

July 3, 1958—Defendant files answers to Interrogatories Nos. 93 to 133.

August 7-8, 1958—Pretrial conference held.

August 25, 1958—Court enters order for production of documents under Rule 34 by the Defendant. Court enters order of pretrial conference held. Hearing held on Defendant's Motion for Summary Judgment; said motion taken under advisement.

September 2, 1958—Court files memorandum opinion; ordered and adjudged that the Defendant's Motion for Summary Judgment is denied.

September 16, 1958—Plaintiff files Interrogatories Nos. 134 to 199 and Requests for Admissions 79 to 110.

September 18, 1958—Defendant files depositions of Rice, Gustafson, Johnson and Stephens.

October 10, 1958—Defendant files Interrogatories Nos. 25 to 223 to Plaintiff and Requests for Admissions Nos. 1 to 59. Defendant files answers to Plaintiff's Requests for Admissions Nos. 79 to 110 and Answers to Plaintiff's Interrogatories Nos. 134 to 199.

October 30, 1958—Plaintiff files answers to Defendant's Request for Admissions.

November 6, 1958—Plaintiff files answers to Defendant's Interrogatories Nos. 25 to 223.

November 12, 1958—Defendant files substituted Counterclaim and substituted Supplemental Counterclaim.

Date	Entry
November 14, 1958	Plaintiff files Motion for Order to compel compliance with paragraphs 5 and 6 of Order for Production of Documents under Rule 34, or in the alternative, to produce the papers and records claimed to be privileged for the Court's determination.
November 19, 1958	Plaintiff files substituted Answer to Defendant's Substituted Counterclaim with proof of service. Plaintiff files Substituted Cross-counterclaim.
November 26, 1958	Parties file stipulations regarding patent rights of Defendant; stipulation under Rule 42(b); stipulation relating to Exhibits D-1 to D-45 and Exhibit E; also file stipulation regarding Defendant's knowledge of prior art. Defendant files substituted answer to Plaintiff's substituted Cross-counterclaim.
December 15, 1958	Plaintiff files deposition of Darrah. Cause submitted for trial on Defendant's Counterclaim. Plaintiff's Motion to Compel Compliance with paragraphs 5 and 6 under Rule 34 withdrawn. Defendant voluntarily complies with alternative request and tenders Defendant's Exhibit No. 1, which the Court examines and finds it to be privileged and denies alternative motion, orders Exhibit 1 sealed and not disclosable to anyone except the Judge and Defendant. Opening statements of parties heard in part and continued.
December 16, 1958 to December 19, 1958	Trial resumed but not concluded,
January 5, 1959 to January 8, 1959	Trial resumed and concluded.
April 16, 1959	Order of the Court assigning cause for final argument on June 16, 1959.
June 3, 1959	Parties file Stipulation waiving final argument.
June 4, 1959	Court approves stipulation waiving final argument.

Date	Entry
June 16, 1959	Court files its Findings of Fact and Conclusions of Law.
June 18, 1959	Court files correcting entry relating to Conclusion of Law No. 9. Court enters Judgment for Defendant. Court enters Judgment that Patents Nos. 2,685,536 and 2,794,417 are valid and infringed by Plaintiff. Plaintiff enjoined from use, manufacture, or sale of process or device covered by claims in said patents or infringement thereon. Defendant to recover damages for infringement of said patents together with reasonable attorneys fees and costs. Cause continued as to issues covered in stipulation of parties and Rule 42(b). Plaintiff's Cross-counterclaim dismissed and Defendant to recover its costs thereon.
July 2, 1959	Plaintiff files Notice of Appeal.

APPENDIX.

814

UNITED STATES DISTRICT COURT,
Southern District of Indiana,
Indianapolis Division.

Binks Manufacturing Company (a corporation of the State of Delaware), *Plaintiff,* vs. Ransburg Electro-Coating Corp. (a corporation of the State of Indiana), *Defendant.*	Civil Action No. IP 56-C-262

SUBSTITUTED COUNTERCLAIM.

(Original Filed December 3, 1956.)

Now comes defendant-countercomplainant, Ransburg Electro-Coating Corp., an Indiana corporation having its principal office and place of business at Indianapolis, Indiana, and files this its counterclaim against plaintiff-counter-defendant, Binks Manufacturing Company, a Delaware corporation having its principal office and place of business at Chicago, Illinois, and in support of its cause of action avers:

1. This action arises under the Patent Laws of the United States, 35 U. S. C., Sec. 271,281 et seq.

2. On August 3, 1954, United States Letters Patent No. 2,685,536 were duly and legally issued to defendant-countercomplainant for an invention of a Method for Electrostatically Coating Articles; and since that date defendant-countercomplainant has been and still is the owner of those Letters Patent.

3. Plaintiff-counterdefendant has since August 3, 1954,

infringed those Letters Patent by practicing the process covered thereby, and will continue to do so unless enjoined by this Court.

Wherefore, defendant-countercomplainant prays for judgment against the plaintiff-counterdefendant:

815 a. For an injunction against infringement, direct or contributory, by plaintiff-counterdefendant and those controlled by it.

b. For damages as provided by Title 35 U. S. C., Sec. 284-285, including reasonable attorneys' fees, costs and interest, and for an accounting to ascertain the amount thereof.

c. For such other and further relief as this Court may deem just.

Ransburg Electro-Coating,
By Verne A. Trask,
801 Hume Mansur Building,
Indianapolis 4, Indiana,
Attorney for Defendant and Countercomplainant.

Of Counsel:
Elbert R. Gilliom,
1340-1344 Consolidated Building,
Indianapolis 4, Indiana.
Harry T. Ice,
951 Consolidated Building,
Indianapolis 4, Indiana.
James P. Hume,
First National Bank Building,
38 South Dearborn Street,
Chicago 3, Illinois.

Receipt of copies of the foregoing Substituted Counterclaim (original filed December 3, 1956) acknowledged this 12th day of November, 1958.

Harold B. Hood,
Attorney for Plaintiff.

816 UNITED STATES DISTRICT COURT.

(Caption—56-C-262)

SUBSTITUTED SUPPLEMENTAL COUNTERCLAIM.

(Original Filed May 21, 1958.)

Now comes the defendant, Ransburg Electro-Coating Corp., and supplements its cause of action against the plaintiff, Binks Manufacturing Company, as asserted in its counterclaim, by making the following allegations:

4. On June 4, 1957, United States Letters Patent No. 2,794,417 were duly and legally issued to defendant, Ransburg Electro-Coating Corp., for an invention covering an Apparatus for Electrostatically Coating Articles, and since that date defendant has been, and still is, the owner of said Letters Patent.

5. Since June 4, 1957, and prior to the filing of this supplemental counterclaim, plaintiff, Binks Manufacturing Company, has been, and still is, infringing, as presently advised, at least claim 4 of said Letters Patent, and will continue to do so unless enjoined by this Court.

Wherefore, defendant-countercomplainant prays for judgment against the plaintiff-counterdefendant:

a. For an injunction against infringement, direct or contributory, of said Letters Patent No. 2,794,417 by plaintiff-counterdefendant or those controlled by it.

b. For damages as provided in Title 35 U. S. C. 817 §§ 284-285, including reasonable attorneys' fees, costs, and interest, and for an accounting to ascertain the amount thereof with respect to said Letters Patent No. 2,794,417.

c. For such other and further relief as this Court may deem just.

Ransburg Electro-Coating Corp.,
By Verne A. Trask,
801 Hume Mansur Building,
Indianapolis 4, Indiana,
Attorney for Defendant-Countercomplainant.

Of Counsel:

Elbert R. Gilliom,
1340-1344 Consolidated Building,
Indianapolis 4, Indiana.

Harry T. Ice,
951 Consolidated Building,
Indianapolis 4, Indiana.

James F. Hume,
First National Bank Building,
38 South Dearborn Street,
Chicago 3, Illinois.

Receipt of copies of the foregoing Substituted Supplemental Counterclaim (original filed May 21, 1958) acknowledged this 12th day of November, 1958.

Harold B. Hood,
Attorney for Plaintiff-Counterdefendant.

818 IN THE UNITED STATES DISTRICT COURT.
(Caption—56-C-262)

PLAINTIFF'S SUBSTITUTED ANSWER TO DEFENDANT'S SUBSTITUTED COUNTERCLAIM.

(Original filed December 10, 1956.)

Plaintiff, Binks Manufacturing Company, answers the substituted counterclaim as follows:

First Defense.

1. Plaintiff admits the allegations of paragraph 1.

2. Plaintiff admits that United States Letters Patent No. 2,685,536 was issued on August 3, 1954 and the Defendant is owner as alleged in paragraph 2, but Plaintiff denies that said Letters Patent were duly and legally issued.

3. Plaintiff denies the allegations of paragraph 3.

Second Defense.

4. The Plaintiff alleges that the following listed references clearly evidence that the claims of the Starkey 819 et al., Patent No. 2,685,536 are devoid of invention:

As Anticipation.

Heis et al, U. S. Patent No. 1, 475,995 of Dec. 4, 1923
Littlefield, U. S. Patent No. 1,360,654 of Nov. 30, 1920
Littlefield, U. S. Patent No. 1,854,475 of Apr. 19, 1932
Pugh, U. S. Patent No. 1,855,869 of Apr. 26, 1932
Darrah, U. S. Patent No. 1,958,406 of May 15, 1934
Wintermute, U. S. Patent No. 2,221,338 of Nov. 12, 1940
Ransburg et al, U. S. Patent No. 2,247,963 of July 1, 1941
Gravley, U. S. Patent No. 2,359,476 of Oct. 3, 1944

The London, Edinburgh and Dublin Philosophical Magazine, Volume XXIII, page 490 (1887).
Electrical Experiments by Francis, page 37 (1850).
Zeleny, The Physical Review, Second Series, Vol. III, No. 2 (February, 1914), pages 69-91.
Zeleny, Proceedings of the Cambridge Philosophical Society, Vol. 18, pages 71-83 (1915).
Zeleny, The Physical Review, Second Series, Volume X, No. 1, pages 1-6 (July, 1917).
Zeleny, The Physical Review, Second Series, Volume XVI, No. 2, pages 102-125 (1920).
Zeleny, Journal of the Franklin Institute, Volume 219, No. 6, pages 659-675 (June, 1935).
Proceedings of the Royal Irish Academy Volume XXXIX, Page 21 (1929).

820 To Show the State of the Prior Art.

Smyser, U. S. Patent No. Re. 22,419 of Jan. 11, 1944
DeVars, U. S. Patent No. 398,327 of Feb. 19, 1889
Simpson, U. S. Patent No. 601,594 of Mar. 29, 1898
Morton, U. S. Patent No. 705,691 of July 29, 1902
Wickson, U. S. Patent No. 735,638 of Aug. 4, 1903
Cooley, U. S. Patent No. 745,276 of Nov. 24, 1903
Fitzgerald, U. S. Patent No. 805,719 of Nov. 28, 1905
Althouse, U. S. Patent No. 1,153,004 of Sept. 7, 1915
Gentile, U. S. Patent No. 1,454,376 of May 8, 1923
Fraser, U. S. Patent No. 1,478,113 of Dec. 18, 1923
Wille et al, U. S. Patent No. 1,638,757 of Aug. 9, 1927
Hampton et al, U. S. Patent No. 1,740,981 of Dec. 24, 1929
Collins, U. S. Patent No. 1,911,808 of May 30, 1933
Formhals, U. S. Patent No. 1,975,504 of Oct. 2, 1934
Morton, U. S. Patent No. 2,048,651 of July 21, 1936
Ronzi, U. S. Patent No. 2,095,651 of Oct. 12, 1937
Meston, U. S. Patent No. 2,097,233 of Oct. 26, 1937
Russell et al, U. S. Patent No. 2,128,327 of Aug. 30, 1938
Wise et al, U. S. Patent No. 2,173,741 of Sept. 19, 1939
Formhals, U. S. Patent No. 2,187,306 of Jan. 16, 1940
Benner et al, U. S. Patent No. 2,191,827 of Feb. 27, 1940
Hill, U. S. Patent No. 2,217,444 of Oct. 8, 1940
Huebner, U. S. Patent No. 2,224,391 of Dec. 10, 1940

Gundelfinger, U. S. Patent No. 2,251,931 of Aug. 12, 1941
Rooney et al, U. S. Patent No. 2,268,622 of Jan. 6, 1942.
Branston-Cook, U. S. Patent No. 2,302,289 of Nov. 17, 1942

821

Kimball et al, U. S. Patent No. 2,354,688 of Aug. 1, 1944
Wind et al, U. S. Patent No. 2,431,629 of Nov. 25, 1947
Kearsley, U. S. Patent No. 2,438,561 of Mar. 30, 1948
Huebner, U. S. Patent No. 2,451,288 of Oct. 12, 1948
Bennett et al, U. S. Patent No. 2,491,889 of Dec. 20, 1949

5. Each of the claims of the Starkey et al patent No. 2,685,536 is void and invalid and the Defendant is barred from enforcing the same on the following grounds:

(a) As lacking invention over what has long been known to be old in the art as set forth hereinabove.

(b) As lacking novelty over the prior art hereinabove set forth which constitutes full justification for the Plaintiff's devices such as that shown in Plaintiff's Drawing SK-661 dated 5-12-54, a copy of which has been furnished Defendant.

(c) As being indefinite, ambiguous and incomplete contrary to the statutory requirement of a full, clear, concise and exact disclosure and definition of the alleged invention.

(d) As involving claims not supported by the specification of said Starkey et al Patent No. 2,685,536.

(e) As involving claims directed to mere aggregations and old combinations of well known features and steps set forth in the prior art hereinabove specified.

(f) As embracing claims constituting a fraud on the public because of the deceptive and misleading character of the description of such claims.

(g) As lacking in originality in the light of the references hereinabove cited which clearly indicate that the Commissioner of Patents exceeded his legal authority in granting said Letters Patent.

822 (h) As embracing claims broader than the patent disclosure and involving nothing more than ordinary mechanical skill and even at that of a very low order.

(i) As embracing claims wherein the patentees knowingly patented the ideas of others.

(j) As embracing claims constituting a double patenting of the alleged invention and especially in view of the Defendant's Ransburg Patent No. 2,658,009 issued on November 3, 1953 or almost a year before the issuance of Starkey et al. Patent No. 2,685,536.

(k) As embracing claims so limited and confined during the prosecution of the application in the United States Patent Office that a contention herein that they are infringed by the use of Plaintiff's device, such as that of Plaintiff's Drawing SK-661, requires the invoking of the doctrine of "estoppel by limitation".

Third Defense.

6. Defendant has and is presently granting licenses under the aforesaid Starkey et al. patent No. 2,685,536 for using the method or process thereof and which process is known as the "No. 2" or airless type process.

7. The Defendant, in granting such licenses under its patents, including the aforesaid Starkey et al. Patent No. 2,685,536 represents to the trade and in interstate commerce that it exclusively owns the patent monopoly for "electrostatically depositing airlessly atomized (without compressed air) liquid spray particles".

823 8. The Defendant, in granting its aforesaid licenses under the aforesaid Starkey et al. Patent No. 2,685,536 couples with such license agreements a leasing agreement in which it leases equipment for use in practicing the patented process of Starkey et al. Patent No. 2,685,536.

9. The Plaintiff, in its marketing of spray equipment, has ascertained that there is a demand in the trade and

in interstate commerce for a paint sprayer which will electrostatically atomize paint without making use of air, and, accordingly, fully developed a paint sprayer which it is capable of manufacturing and selling in order to meet the market demands.

10. The Defendant, in a letter dated July 12, 1956, submitted to the Plaintiff its license form Nos. 439 and 440 as being standard forms of Defendant pertaining to the spraying of paint by a sprayer which will electrostatically atomize paint without making use of air.

11. On information and belief, the Plaintiff understands that the Defendant has, in its licensing and leasing program pertaining to electrostatic spraying and beginning about January of 1948 to the date of the commencement of this action, employed 45 different forms of agreement.

12. On information and belief, the Plaintiff understands that up to the filing of the original complaint herein the Defendant has granted 733 licenses on electrostatic spraying, of which 463 were in force and effect on the date of the filing of the complaint herein.

824 13. (a) Up to the date of the filing of the complaint herein, the Defendant has included in all of its licensing agreements relating to airless electrostatic spray coating a provision requiring the Defendant, as licensor, to furnish to licensee at least some of the equipment employed in the spraying and

(b) Defendant has furnished such equipment pursuant to said license agreements.

14. (a) The Defendant, as a part of its aforesaid licenses, renders engineering and technical services to its licensees at least to the extent necessary for the use of the licensed spraying process, and

(b) Such licensees are required to compensate the Defendant licensor for such engineering and technical services by fees and

(c) Such fees have been paid by licensees to Defendant.

15. The Defendant, after restricting its Starkey et al. Patent No. 2,685,536 to only method claims in the prosecution of the application from which the patent issued, thereafter wrongfully used such patent contrary to the anti-trust laws for the purpose of tying in with licenses under the method claims of said Starkey et al. patent, leases for unpatented spraying equipment.

16. The Defendant is illegally and in violation of the anti-trust laws employing its Starkey et al. method patent No. 2,685,536 to require the leasing of equipment of Defendant as a condition for a licensee taking a license
825 under the method claims and in so doing has committed acts of unfair competition to the detriment of the public and to the damage of the Plaintiff.

17. The Defendant's entire program of licensing and leasing of electrostatic spraying equipment not only involves an abuse of its patents, but contravenes the spirit and intent of the anti-trust laws in that it enables the Defendant to extend its monopoly in such manner as to monopolize substantially the field of electrostatic spraying and especially that of electrostatic atomization without the use of air.

18. The Defendant is wrongfully using its Starkey et al. Patent No. 2,685,536,

(a) To coerce the public into leasing equipment from the Defendant, all to the detriment of the public and ultimate consumer of products processed under the Starkey et al. patent by licensees and lessees and

(b) To coerce manufacturers of spray equipment, such as the Plaintiff, into not making and selling such equipment as is, for example, shown in the aforesaid drawing SK-661 of the Plaintiff.

19. The Defendant, its officers and aforesaid alleged inventors of Starkey et al. patent No. 2,685,536, individually and collectively, have conspired with each other and with

others in restraint of trade and monopolizing, through patents and illegal agreements, of the electrostatic spray equipment business in interstate commerce, contrary to the anti-trust and anti-monopoly laws of the United States, and in so doing have committed illegal acts of unfair
826 competition, all to the detriment of the public and to the damage of the Plaintiff.

20. It is further alleged that Defendant should be held estopped from asserting the aforesaid Starkey et al. Patent No. 2,685,536 against the Plaintiff by virtue of the Defendant's unclean hands in its aforesaid wrongful acts in illegal restraint of trade and in contravention of the anti-trust laws of the United States of America.

21. (a) Defendant has substantially a complete monopoly in the United States of airless electrostatic liquid spray coating systems in its leasing program;

(b) in which it has coupled the granting of an equipment lease with the granting of a patent license as a single package deal;

(c) in which it has never leased equipment without also requiring the lessee to take a patent license;

(d) in which it has never granted a patent license without at the same time leasing equipment;

(e) in which it has required lessees as a condition to receiving leased equipment to pay an initial fee of thousands of dollars which more than compensated Defendant for the cost of manufacturing the equipment furnished;

(f) in which it has required lessees to turn over to Defendant patent licenses on inventions made or acquired by such lessees relating to the leased system;

(g) in which it has in its composite lease and license forms of agreement required recognition of the validity of not only patents taken out by Defendant but also of any patent rights acquired by Defendant from third parties;

827 (h) in which it has required lessees to accept a termination provision in leases which required the lessee, upon termination of the lease, to surrender to Defendant all of the leased equipment without receiving any refund for the initial fee of thousands of dollars paid by the lessee;

(i) in which Defendant has provided in its composite lease and license agreement forms for the furnishing by Defendant of services and replacement parts to the lessees;

(j) in which Defendant has included in the leased equipment numerous unpatented parts not embraced by the claims of the Starkey et al. letters patent No. 2,685,536;

(k) in which in its leases, Defendant has received full compensation, dollar wise, for the manufacturing cost of the major item of the equipment leased, namely the power pack, which is not covered by any of the claims of the Starkey et al. letters patent No. 2,685,536;

(l) in which Defendant has, in certain of its leases, granted more favorable terms to paint or coating material manufacturers who in turn recommended the Defendant's leased system in their advertising;

(m) in which Defendant has refused to grant spray equipment manufacturers, such as the Plaintiff herein, a license under the Starkey et al. patent No. 2,685,536, unless such manufacturers sell the licensed spray equipment only to customers licensed by Defendant;

(n) in which Defendant in its license-lease agreements did not specifically identify by number any of its patents which applied directly to the equipment being leased, thus requiring licensees to recognize the validity of any patents considered by Defendant to be applicable, even though not identified; and

828 (c) in which Defendant has required the payment of a fee for the use of reciprocators in its leased systems even where Defendant did not supply such reciprocators to the lessee.

22. The Defendant has

(a) engaged in interstate commerce; and

(b) in the course of such commerce leased electrostatic spray coating equipment for use within the United States;

(c) said leasing being on the condition, agreement, or understanding that the lessee should not use or deal in the equipment of a competitor or competitors of Defendant; and

(d) thereby lessened competition or tended to create a monopoly in the field of electrostatic spray coating equipment.

23. Defendant has illegally exploited the Patent System of the United States by acquiring patent rights from outside the Defendant's organization for the purpose of restricting entry of competitors into the field of electrostatic spray coating equipment.

24. Defendant has extended its monopoly in the field of electrostatic spray coating equipment by requiring licensees, as a condition for receiving a license, to license back to Defendant, royalty-free, patent rights in inventions made in the airless electrostatic spray coating field by such licensees.

25. Defendant has secured patent rights from outside parties for the purpose of intimidating and overwhelming and coercing the trade into dealing only with the Defendant.

829 26. Defendant's predecessor, Harper J. Ransburg Company, entered into an agreement in restraint of trade with the Behr-Manning Corporation dividing the field of electrostatic coating between the parties thereto. Defendant has succeeded to all of said predecessor's rights under said agreement, and in furtherance of the purposes

thereof, has coerced the trade into dealing only with Defendant in the field of electrostatic spray coating of liquids.

27. Defendant, by licensing its patents only as a package, has enlarged the patent monopoly of particular patents for the exploitation of the monopoly of its other patents.

28. Defendant, by licensing its patents only as a package, has enlarged the patent monopoly of particular patents for the exploitation or promotion of a business not within the patents.

29. Defendant, through its license and lease agreements, has created a perpetual monopoly in the field of electrostatic spray coating equipment, said monopoly extending beyond the term of any of Defendant's patents which may apply to such equipment.

30. As far as Plaintiff is advised, Defendant owns 100% or substantially 100% of all airless electrostatic spray coating systems in use in the United States. Defendant does not sell such systems to users.

31. By its policy of leasing, but not selling, airless electrostatic spray coating systems, and imposing the conditions recited in such leases, Defendant has re-
830 strained the development and growth in the United States of business in:

(a) making and selling repair and replacement parts for such systems; and

(b) buying and selling used airless electrostatic spray coating systems.

32. Defendant, in its leases, exerts substantially complete monopolistic control over its lessees by:

(a) requiring lessees to license back to Defendant, royalty-free, all inventions made in the field of electrostatic spray coating by such lessees

(b) retaining the right to cancel such leases and remove the leased equipment from the premises of the lessee, without cause

(c) retaining the right to make changes in the equipment supplied to lessees

(d) making it economically impossible for lessees to procure replacement parts for the equipment on the open market

(e) making it economically impossible for lessees to secure servicing of such equipment in the open market

(f) making it impossible for its licensees to divest themselves of defendant's equipment without suffering a complete loss of their investment in such equipment.

Wherefore, Plaintiff prays:

That the Defendant take nothing by its Substituted Counterclaim;

That the Defendant be ordered to purge itself of its wrongful and illegal conduct in its licensing and leasing program with respect to electrostatic spraying by dissipating the effects of its wrongful conduct;

831 That the aforesaid Starkey et al., patent No. 2,685,536 be held non-infringed by any of the Plaintiff's spraying equipment;

That the aforesaid Starkey et al., patent No. 2,685,536 be held invalid and a nullity from its inception;

That the Court grant to the Plaintiff such other and further relief as it may deem just and equitable.

Harold B. Hood,
1001 Hume Mansur Building,
Indianapolis 4, Indiana,

Charles F. Meroni,
Otto R. Krause,
Hill, Sherman, Meroni, Gross & Simpson,
53 West Jackson Blvd.,
Chicago 4, Illinois,
Attorneys for Plaintiff.

Receipt of four (4) copies of the above and foregoing substituted Answer to Defendant's Counterclaim is hereby acknowledged this 19th day of November, 1958.

V. A. Trask,
Attorney for Defendant.

832 IN THE UNITED STATES DISTRICT COURT.
(Caption—56-C-262)

PLAINTIFF'S SUBSTITUTED ANSWER TO DEFENDANT'S SUBSTITUTED SUPPLEMENTAL COUNTERCLAIM.

(Original filed June 11, 1958.)

Plaintiff, Binks Manufacturing Company, answers the Substituted Supplemental Counterclaim as follows:

First Defense.

33. Answering paragraph 4, Plaintiff admits that United States Letters Patent No. 2,794,417 was issued on June 4, 1957 and that Defendant is the owner as alleged, but denies that such Letters Patent were duly and legally issued.

34. Plaintiff denies the allegations of paragraph 5.

Second Defense.

35. The Plaintiff alleges that the following listed references clearly evidence that the claims of the Starkey et al patent No. 2,794,417 are devoid of invention:

833 **As Anticipation.**

Heis et al, U. S. Patent No. 1,475,995 of Dec. 4, 1923
Littlefield, U. S. Patent No. 1,360,654 of Nov. 30, 1920
Littlefield, U. S. Patent No. 1,854,475 of Apr. 19, 1932

Pugh, U. S. Patent No. 1,855,869 of Apr. 26, 1932
Darrah, U. S. Patent No. 1,958,406 of May 15, 1934
Wintermute, U. S. Patent No. 2,221,338 of Nov. 12, 1940
Ransburg et al, U. S. Patent No. 2,247,963 of July 1, 1941
Gravley, U. S. Patent No. 2,359,476 of Oct. 3, 1944
The London, Edinburgh and Dublin Philosophical Magazine, Volume XXIII, page 490 (1887).
Electrical Experiments by Francis, page 37 (1850).
Zeleny, The Physical Review, Second Series, Vol. III, No. 2 (February, 1914), pages 69-91.
Zeleny, Proceedings of the Cambridge Philosophical Society, Vol. 18, pages 71-83 (1915).
Zeleny, The Physical Review, Second Series, Volume X, No. 1, pages 1-6 (July, 1917).
Zeleny, The Physical Review, Second Series, Volume XVI, No. 2, pages 102-125 (1920).
Zeleny, Journal of the Franklin Institute, Volume 219, No. 6, pages 659-675 (June, 1935).
Proceedings of the Royal Irish Academy, Volume XXXIX, Page 21 (1929).

834 To Show the State of the Prior Art.

Smyser, U. S. Patent No. Re. 22,419 of Jan. 11, 1944
DeVars, U. S. Patent No. 398,327 of Feb. 19, 1889
Simpson, U. S. Patent No. 601,594 of Mar. 29, 1898
Morton, U. S. Patent No. 705,691 of July 29, 1902
Wickson, U. S. Patent No. 735,638 of Aug. 4, 1903
Cooley, U. S. Patent No. 745,276 of Nov. 24, 1903
Fitzgerald, U. S. Patent No. 805,719 of Nov. 28, 1905
Althouse, U. S. Patent No. 1,153,004 of Sept. 7, 1915
Gentile, U. S. Patent No. 1,454,376 of May 8, 1923
Fraser, U. S. Patent No. 1,478,113 of Dec. 18, 1923
Wille et al, U. S. Patent No. 1,638,757 of Aug. 9, 1927
Hampton et al, U. S. Patent No. 1,740,981 of Dec. 24, 1929
Collins, U. S. Patent No. 1,911,808 of May 30, 1933
Formhals, U. S. Patent No. 1,975,504 of Oct. 2, 1934
Morton, U. S. Patent No. 2,048,651 of July 21, 1936
Ronzi, U. S. Patent No. 2,095,651 of Oct. 12, 1937
Meston, U. S. Patent No. 2,097,233 of Oct. 26, 1937
Russell et al, U. S. Patent No. 2,128,327 of Aug. 30, 1938

Wise et al, U. S. Patent No. 2,173,741 of Sept. 19, 1939
Formhals, U. S. Patent No. 2,187,306 of Jan. 16, 1940
Benner et al, U. S. Patent No. 2,191,837 of Feb. 27, 1940
Hill, U. S. Patent No. 2,217,444 of Oct. 8, 1940
Huebner, U. S. Patent No. 2,224,391 of Dec. 10, 1940
Gundelfinger, U. S. Patent No. 2,251,931 of Aug. 12, 1941
Rooney et al, U. S. Patent No. 2,268,622 of Jan. 6, 1942
Branston-Cook, U. S. Patent No. 2,302,289 of Nov. 17, 1942
Kimbal et al, U. S. Patent No. 2,354,688 of Aug. 1, 1944
Wind et al, U. S. Patent No. 2,431,629 of Nov. 25, 1947
Kearsley, U. S. Patent No. 2,438,561 of Mar. 30, 1948
Huebner, U. S. Patent No. 2,451,288 of Oct. 12, 1948
Bennett et al, U. S. Patent No. 2,491,889 of Dec. 20, 1949
Starkey et al, U. S. Patent No. 2,685,536 of Aug. 3, 1954

36. Each of the claims of the Starkey et al. patent No. 2,794,417 is void and invalid and the Defendant is barred from enforcing the same on the following grounds:

835 (a) As lacking invention over what has long been known to be old in the art as set forth hereinabove.

(b) As lacking novelty over the prior art hereinabove set forth which constitutes full justification for the Plaintiff's devices such as that shown in Plaintiff's Drawing SK-661 dated 5-12-54, a copy of which has been furnished Defendant.

(c) As being indefinite, ambiguous and incomplete contrary to the statutory requirement of a full, clear, concise and exact disclosure and definition of the alleged invention.

(d) As involving claims not supported by the specification of said Starkey et al. patent No. 2,794.417.

(e) As involving claims directed to mere aggregations and old combinations of well known features and steps set forth in the prior art hereinabove specified.

(f) As embracing claims constituting a fraud on the public because of the deceptive and misleading character of the description of such claims.

(g) As lacking in originality in the light of the references hereinabove cited which clearly indicate that the Commissioner of Patents exceeded his legal authority in granting said Letters Patent.

(h) As embracing claims broader than the patent disclosure and involving nothing more than ordinary mechanical skill and even at that of a very low order.

(i) As embracing claims wherein the patentees knowingly patented the ideas of others.

(j) As embracing claims in Patent No. 2,794,417 which constitute a double patenting of the alleged invention in view of the earlier issued Starkey et at. patent No. 2,685,536.

836 (k) As embracing claims which set forth nothing more than the obvious apparatus for carrying out the method claims in patent No. 2,685,536.

(l) As embracing claims constituting an illegal extension of the monopoly provided by the earlier issued patent No. 2,685,536.

(m) As embracing claims which are non-statutory in nature in view of the method limitations in claims purportedly directed to apparatus.

(n) As embracing claims so limited and confined during the prosecution of the application in the United States Patent Office that a contention herein that they are infringed by the use of Plaintiff's device, such as that of Plaintiff's drawing SK-661, requires the invoking of the doctrine of "estoppel by limitation."

Third Defense.

37. Plaintiff further alleges that Defendant received knowledge of prior art anticipating one or more claims of the application which issued as Patent No. 2,794,417 prior to the issuance of said patent and withheld such knowledge from the United States Patent Office, and that in the

absence of such knowledge, the Patent Office issued an invalid patent, to the detriment of the public.

38. Plaintiff further alleges that Defendant in failing to disclaim one or more claims of Patent No. 2,794,417 in view of its knowledge of anticipating prior art, is estopped from asserting said patent against Plaintiff.

837 39. Plaintiff further alleges that Defendant is estopped from asserting any interpretation of the claims in Patent No. 2,794,417 which would cover the Plaintiff's airless electrostatic spray coating emitter identified as SK-661 in view in the Defendant's voluntary cancellation of certain claims in the application which issued as Patent No. 2,794,417 and in the earlier companion Patent No. 2,685,536.

Fourth Defense.

40. Defendant has and is presently granting licenses under its patents, including Patent No. 2,794,417 for the practice of a process known as the "No. 2" or airless type process.

41. The Defendant, in granting such licenses under its patents, represents to the trade and in interstate commerce that it exclusively owns the patent monopoly for "electrostatically depositing airlessly atomized (without compressed air) liquid spray particles."

42. The Defendant, in granting its aforesaid licenses under the aforesaid Starkey et al. patent No. 2,685,536 couple with such license agreements a leasing agreement in which it leases equipment for use in practicing the patented process of Starkey et al. patent No. 2,685,536.

43. The Plaintiff, in its marketing of spray equipment, has ascertained that there is a demand in the trade and in interstate commerce for a paint sprayer which will electrostatically atomize paint without making use of air, and, accordingly, fully developed a paint sprayer which it is

capable of manufacturing and selling in order to meet the market demands.

838 44. The Defendant, in a letter dated July 12, 1956, submitted to the Plaintiff its license form Nos. 439 and 440 as being standard forms of Defendant pertaining to the spraying of paint by a sprayer which will electrostatically atomize paint without making use of air.

45. On information and belief, the Plaintiff understands that the Defendant has, in its licensing and leasing program pertaining to electrostatic spraying and beginning about January of 1948 to the date of the commencement of this action, employed 45 different forms of agreement.

46. On information and belief, the Plaintiff understands that up to the filing of the original complaint herein the Defendant has granted 733 licenses on electrostatic spraying, of which 463 were in force and effect on the date of the filing of the complaint herein.

47. (a) Up to the date of the filing of the complaint herein, the Defendant has included in all of its licensing agreements relating to airless electrostatic spray coating a provision requiring the Defendant, as licensor, to furnish a licensee at least some of the equipment employed in the spraying and (b) Defendant has furnished such equipment pursuant to said license agreements.

48. (a) The Defendant, as a part of its aforesaid licenses, renders engineering and technical services to its licensees at least to the extent necessary for the use of the licensed spraying process, and

(b) Such licensees are required to compensate the Defendant licensor for such engineering and technical services by fees and

(c) Such fees have been paid by licensees to Defendant.

839 49. The Defendant, after restricting its Starkey et al. patent No. 2,685,536 to only method claims in the

prosecution of the application from which the patent issued, thereafter wrongfully used such patent contrary to the anti-trust laws for the purpose of tying it with licenses under the method claims of said Starkey et al. patent, leases for unpatented spraying equipment.

50. The Defendant is illegally and in violation of the anti-trust laws employing its Starkey et al. method patent No. 2,685,836 to require the leasing of equipment of Defendant as a condition for a licensee taking a license under the method claims and in so doing has committed acts of unfair competition to the detriment of the public and to the damage of the Plaintiff.

51. The Defendant's entire program of licensing and leasing of electrostatic spraying equipment not only involves an abuse of its patents, but contravenes the spirit and intent of the anti-trust laws in that it enables the Defendant to extend its monopoly in such manner as to monopolize substantially the field of electrostatic spraying and especially that of electrostatic atomization without the use of air.

52. The Defendant is wrongfully using its Starkey et al. patent No. 2,685,536:

(a) To coerce the public into leasing equipment from the Defendant, all to the detriment of the public and ultimate consumer of products processed under the Starkey et al. patent by licensees and lessees and

(b) To coerce manufacturers of spray equipment, 840 such as the Plaintiff, into not making and selling such equipment as is, for example, shown in the aforesaid drawing SK-661 of the Plaintiff.

53. The Defendant, its officers and aforesaid alleged inventors of Starkey et al. patent No. 2,685,536, individually and collectively have conspired with each other and with others in restraint of trade and monopolizing, through patents and illegal agreements, of the electrostatic spray

equipment business in interstate commerce, contrary to the anti-trust and anti-monopoly laws of the United States, and in so doing have committed illegal acts of unfair competition, all to the detriment of the public and to the damage of the Plaintiff.

54. It is further alleged that Defendant should be held estopped from asserting the aforesaid Starkey et al. Patent No. 2,685,536 against the Plaintiff by virtue of the Defendant's unclean hands in its aforesaid wrongful acts in illegal restraint of trade and in contravention of the anti-trust law of the United States of America.

55. (a) Defendant has substantially a complete monopoly in the United States of airless electrostatic liquid spray coating systems in its leasing program;

(b) in which it has coupled the granting of an equipment lease with the granting of a patent license as a single package deal;

(c) in which it has never leased equipment without also requiring the lessee to take a patent license;

(d) in which it has never granted a patent license without at the same time leasing equipment;

841 (e) in which it has required lessees as a condition to receiving leased equipment to pay an initial fee of thousands of dollars which more than compensated Defendant for the cost of manufacturing the equipment furnished;

(f) in which it has required lessees to turn over to Defendant patent licenses on inventions made or acquired by such lessees relating to the leased system;

(g) in which it has in its composite lease and license forms of agreement required recognition of the validity of not only patents taken out by Defendant but also of any patent rights acquired by Defendant from third parties;

(h) in which it has required lessees to accept a termination provision in leases which required the lessee, upon termination of the lease, to

surrender to Defendant all of the leased equipment without receiving any refund for the initial fee of thousands of dollars paid by the lessee;

(i) in which Defendant has provided in its composite lease and license agreement forms for the furnishing by Defendant of services and replacement parts to the lessees;

(j) in which Defendant has included in the leased equipment numerous unpatented parts not embraced by the claims of the Starkey et al. Letters Patent No. 2,685,536;

(k) in which in its leases, Defendant has received full compensation, dollar-wise, for the manufacturing cost of the major item of the equipment leased, namely the power pack which is not covered by any of the claims of the Starkey et al. Letters Patent No. 2,685,536;

(l) in which Defendant has, in certain of its leases, granted more favorable terms to paint or coating material manufacturers who in turn recommended the Defendant's leased system in their advertising;

842 (m) in which Defendant has refused to grant spray equipment manufacturers such as the Plaintiff herein, a license under the Starkey et al. patent No. 2,685,536 unless such manufacturers sell the licensed spray equipment only to customers licensed by Defendant;

(n) in which Defendant in its license-lease agreements did not specifically identify by number any of its patents which applied directly to the equipment being leased, thus requiring licensees to recognize the validity of any patents considered by Defendant to be applicable; even though not identified; and

(o) in which Defendant has required the payment of a fee for the use of reciprocators in its leased systems even where Defendant did not supply such reciprocators to the lessee.

56. The Defendant has

(a) engaged in interstate commerce; and

(b) in the course of such commerce leased electrostatic spray coating equipment for use within the United States;

(c) said leasing being on the condition, agreement, or understanding that the lessee should not use or deal in the equipment of a competitor or competitors of Defendant; and

(d) thereby lessened competition or tended to create a monopoly in the field of electrostatic spray coating equipment.

57. Defendant has illegally exploited the Patent System of the United States by acquiring patent rights from outside the Defendant's organization for the purpose of restricting entry of competitors into the field of electrostatic spray coating equipment.

58. Defendant has extended its monopoly in the field of electrostatic spray coating equipment by requiring licensees, as a condition for receiving a license, to license back to Defendant, royalty-free, patent rights in inventions made in the airless electrostatic spray coating field by such licensees.

843 59. Defendant has secured patent rights from outside parties for the purpose of intimidating and overwhelming and coercing the trade into dealing only with the Defendant.

60. Defendant's predecessor, Harper J. Ransburg Company, entered into an agreement in restraint of trade with the Behr-Manning Corporation dividing the field of electrostatic coating between the parties thereto. Defendant has succeeded to all of said predecessor's rights under said agreement, and in furtherance of the purposes thereof, has coerced the trade into dealing only with Defendant in the field of electrostatic spray coating of liquids.

61. Defendant, by licensing its patents only as a pack-

age, has enlarged the patent monopoly of particular patents for the exploitation of the monopoly of its other patents.

62. Defendant, by licensing its patents only as a package, has enlarged the patent monopoly of particular patents for the exploitation or promotion of a business not within the patents.

63. Defendant, through its license and lease agreements, has created a perpetual monopoly in the field of electrostatic spray coating equipment, said monopoly extending beyond the term of any of Defendant's patents which may apply to such equipment.

64. As far as Plaintiff is advised, Defendant owns 100% or substantially 100% of all airless electrostatic spray coating systems in use in the United States. Defendant does not sell such systems to users.

844 65. By its policy of leasing, but not selling, airless electrostatic spray coating systems, and imposing the conditions recited in such leases, Defendant has restrained the development and growth in the United States of business in:

(a) making and selling repair and replacement parts for such systems; and
(b) buying and selling used airless electrostatic spray coating systems.

66. Defendant, in its leases, exerts substantially complete monopolistic control over its lessees by:

(a) requiring lessees to license back to Defendant, royalty-free, all inventions made in the field of electrostatic spray coating by such lessees
(b) retaining the right to cancel such leases and remove the leased equipment from the premises of the lessee, without cause
(c) retaining the right to make changes in the equipment supplied to lessees

(d) making it economically impossible for lessees to procure replacement parts for the equipment on the open market

(e) making it economically impossible for lessees to secure servicing of such equipment in the open market

(f) making it impossible for its licensees to divest themselves of defendant's equipment without suffering a complete loss of their investment in such equipment.

Fifth Defense

67. (a) As admitted by the Defendant, it received Plaintiff's letter dated July 25, 1956, together with a copy of Plaintiff's drawing SK-661, showing the airless electrostatic emitter which had been developed by Plaintiff, and

(b) shortly after receipt of said letter by Defendant 845 on or about July 26, 1956, Defendant communicated the subject matter of said Plaintiff's SK-661 electrostatic emitter to its patent counsel, Schroeder, Hofgren, Brady and Wegner.

68. Following Plaintiff's disclosures of the SK-661 airless electrostatic emitter of Plaintiff to Defendant's patent counsel (the law firm of Schroeder, Hofgren, Brady and Wegner), William J. Stellman of said firm, on behalf of Defendant went to Washington and interviewed the Examiner in charge of the examination of the Starkey et al. application, Serial No. 434,366, from which Defendant's apparatus patent No. 2,794,417 in suit issued, and (b) pursuant to such interview presented an Amendment "C" to such application, dated August 23, 1956, adding to the application Claim 18, which now corresponds to Claim 4 of the patent, which is the only claim of said patent specifically alleged herein by the Defendant to be infringed by Plaintiff, which infringement is denied by Plaintiff.

69. That oral instructions were given to Defendant's

patent counsel by Defendant's vice president, E. M. Ransburg, between August 8 and August 21, 1956, as to the filing of Amendment "C" presenting Claim 18 in the Starkey et al. application, Serial No. 434,366, from which the Starkey et al. Patent No. 2,794,417 issued with such claim as Claim 4.

70. That prior to the filing of Amendment "C" on or about August 23, 1956, in connection with application Serial No. 434,366, from which the Starkey et al. apparatus patent No. 2,794,417 issued and in which amendment Claim 18, (corresponding to Claim 4 of the patent in suit), was
846 presented, no claims had ever been presented in that application or any other patent application of the Defendant on an airless electrostatic spray coating apparatus wherein in describing the spaced atomizing points, the expression "sufficiently close to permit the coating material to bridge the spaces therebetween" was employed, (b) that Defendant did not adopt such language in any patent claims until after Plaintiff's SK-661 airless electrostatic emitter development had been disclosed to Defendant on or about July 26, 1956, and (c) that even then such vague and indefinite language was only adopted as a means of obtaining an additional claim with which to harass Plaintiff with an unwarranted charge of infringement.

71. Defendant, after having had disclosed to it on or about July 26, 1956, by Plaintiff the SK-661 airless electrostatic emitter development proprietary to Plaintiff, proceeded in secrecy to present for the first time a claim in a then pending patent application of Defendant (Claim 18, now corresponding to its apparatus patent Claim 4), claiming spraying apparatus in a vague and indefinite manner never claimed before by it and in the light of Plaintiff's disclosure to Defendant.

72. (a) Plaintiff's specific design of SK-661 airless

electrostatic emitter was developed by Plaintiff as a result of a research and development program over a period of several years costing in excess of $40,000.00, and (b) such emitter and information as to the structural details of the same was proprietary to Plaintiff and (c) was, at the time of its disclosure to Defendant, the subject of a 847 patent application (Serial No. 449,697, filed August 13, 1954) pending and maintained in secret in the United States Patent Office.

73. In 1956, as well as at the time of its disclosure to Defendant, Plaintiff's SK-661 airless electrostatic emitter was not generally known publicly, as it had not as yet been sold or publicized by Plaintiff.

74. The disclosure of Plaintiff's SK-661 emitter, which was the subject of a pending secret patent application of Plaintiff, was made to Defendant in 1956 as a new, confidential proprietary development of Plaintiff only for the specific purpose of ascertaining whether Defendant claimed it had any patents covering same, and if so, whether a license to manufacture and sell such an emitter could be had by Plaintiff.

75. Defendant acted inequitably and in an unethical business manner in its surreptitious and secret activities, taking unfair competitive advantage of Plaintiff's confidential disclosure in good faith of its proprietory SK-661 development in Defendant's wrongful appropriations of such disclosure to its own advantage in the drafting and procurement of patent Claim 4 of patent No. 2,794,417, in the light of such disclosure.

76. The aforesaid wrongful activities of the Defendant in its procurement of its patent No. 2,794,417 are all part of the plan of the Defendant to monopolize illegally the market, and to extend and unduly protract patent 848 monopolies in the field of airless electrostatic spraying to the ultimate end of discouraging all competition.

77. Defendant is estopped by its aforesaid inequitable

and unconscionable conduct from enforcing such Claim 4 of its patent No. 2,794,417 against Plaintiff, and (b) it should not be permitted to profit by its wrongful and inequitable conduct to the detriment and damage of Plaintiff.

Wherefore, Plaintiff prays:

That the Defendant take nothing by its Substituted Supplemental Counterclaim;

That the Defendant be ordered to purge itself of its wrongful and illegal conduct in the licensing and leasing program with respect to electrostatic spraying by dissipating the effects of its wrongful conduct;

That the Starkey et al. patent No. 2,794,417 be held non-infringed by any of the Plaintiff's spraying equipment;

That the Starkey et al. patent No. 2,794,417 be held invalid and a nullity from its inception;

That Defendant be held equitably estopped from asserting Claim 4 of its Patent No. 2,794,417;

The the Court grant to the Plaintiff such other and further relief as it may deem just and equitable.

Harold B. Hood,
1001 Hume Mansur Building,
Indianapolis 4, Indiana,

Charles F. Meroni,
Otto R. Krause,
Hill, Sherman, Meroni, Gross & Simpson,
53 West Jackson Blvd.,
Chicago 4, Illinois,
Attorneys for Plaintiff.

Receipt of four (4) copies of the above and foregoing substituted Answer to Defendant's Counterclaim is hereby acknowledged this 19th day of November, 1958.

V. A. Trask,
Attorney for Defendant.

849 IN THE UNITED STATES DISTRICT COURT.
(Caption—56-C-262)

PLAINTIFF'S SUBSTITUTED CROSS-COUNTERCLAIM.

(Original filed December 10, 1956.)

Now comes the Plaintiff Binks Manufacturing Company, a Delaware Corporation, having its principal office and place of business at Chicago, Illinois, and in support of its Cross-Counterclaim avers:

1. Jurisdiction of this court as to the subject matter of the Cross-Counterclaim is founded under the antitrust and anti-monopoly laws of the United States (15 U. S. C., Sec. 1, 2, 14 and 15).

2. The acts herein complained of were and are being committed within this District and elsewhere in the United States and in interstate commerce and the amount in controversy is in excess of three thousand dollars.

3. The Plaintiff, Binks Manufacturing Company, is a corporation organized and existing under the laws of the State of Delaware and has its principal office and place of business at 3114-40 West Carroll Avenue, Chicago 12, Illinois.

4. Defendant, Ransburg Electro-Coating Corpora-
850 tion, is a corporation organized and existing under the laws of the State of Indiana and has its principal office and place of business at Barth and Sanders Streets, Indianapolis 7, Indiana.

5. The Plaintiff, has for many years and is presently manufacturing and selling spraying equipment for paint and other materials in this District and elsewhere in the United States.

6. The Defendant has for a number of years and is

presently licensing under its United States Letters Patents processes for electrostatically spraying pain and leases equipment adapted to practice such processes, the products made under such licenses and by such equipment being widely used in interstate commerce throughout the United States.

7. On August 3, 1954, the Defendant was issued United States Letters Patent No. 2,685,536, entitled "Method For Electrostatically Coating Articles", on an application for patent filed on September 29, 1944, in the names of William A. Starkey and Edwin M. Ransburg, which patent is owned by Defendant.

8. On June 4, 1957, the Defendant was issued United States Letters Patent No. 2,794,417, entitled "Apparatus For Electrostatically Coating Articles" on an application filed June 4, 1954, based upon the aforesaid application filed September 29, 1944, in the names of William A. Starkey and Edwin M. Ransburg, which patent is owned by Defendant.

9. Defendant has and is presently granting licenses under the aforesaid Starkey et al. patents for using the method of process thereof and which process is known as the "No. 2" or airless type process.

10. The Defendant, in granting such licenses under its patents, including the aforesaid Starkey et al. patents, represents to the trade and in interstate commerce that it exclusively owns the patent monopoly for "electrostatically depositing airlessly atomized (without compressed air) liquid spray particles".

11. The Defendant, in granting its aforesaid licenses under the aforesaid Starkey et al. patents, couples with such license agreement a leasing agreement in which it leases equipment for use in practicing its aforesaid patented process of Starkey et al. patent No. 2,685,536.

12. The Plaintiff, in its marketing of spray equipment,

has ascertained that there is a demand in the trade and in interstate commerce for a paint sprayer which will electrostatically atomize paint without making use of air, and, accordingly, fully developed a paint sprayer which it is capable of manufacturing and selling in order to meet the market demands.

13. The Defendant, in a letter dated July 12, 1956, submitted to the Plaintiff its license forms Nos. 439 and 440 as being standard forms of Defendant pertaining to the spraying of paint by a sprayer which will electrostatically atomize paint without making use of air.

14. On information and belief, the Plaintiff understands that the Defendant has, in its licensing and leasing program pertaining to electrostatic spraying and beginning about January of 1948 to the date of the commencement of this action, employed 45 different forms of agreement.

852

15. On information and belief, the Plaintiff understands that up to the filing of the original complaint herein the Defendant has granted 733 licenses on the electrostatic spraying, of which 463 were in force and effect on the date of the filing of the complaint herein.

16. (a) Up to the date of the filing of the complaint herein, the Defendant has included in all of its licensing agreements relating to airless electrostatic spray coating a provision requiring the Defendant, as licensor, to furnish to licensee at least some of the equipment employed in the spraying, and (b) Defendant has furnished such equipment pursuant to said license agreements.

17. (a) The Defendant, as a part of its aforesaid licenses, renders engineering and technical services to its licensees at least to the extent necessary for the use of the licensed spraying process, and

(b) such licensees are required to compensate the De-

fendant licensor for such engineering and technical services by fees, and

(c) such fees have been paid by licensees to Defendant.

18. Plaintiff is advised that it is the Defendant's position that the use of the Plaintiff's equipment shown in Plaintiff's drawing SK-661 for the electrostatic airless atomization of liquid spray particles constitutes an infringement of Defendant's Starkey et al. patent No. 2,685,536.

852 19. The Defendant, after restricting its Starkey et al. patent No. 2,685,536 to only method claims in the prosecution of the application from which the patent issued, thereafter wrongfully used such patent contrary to the antitrust laws for the purpose of tying in with licenses under the method claims of said Starkey et al. patent leases for unpatented spraying equipment.

20. The Defendant is illegally and in violation of the antitrust laws employing its Starkey et al. method patent to require the leasing of equipment of Defendant as condition for a licensee taking a license under the method claims and in so doing has committed acts of unfair competition to the detriment of the public and to the damage of the Plaintiff.

21. The Defendant's entire program of licensing and leasing of electrostatic spraying equipment not only involves an abuse of its patents, but contravenes the spirit and intent of the antitrust laws in that it enables the Defendant to extend its monopoly in such manner as to monopolize substantially the field of electrostatic spraying and especially that of electrostatic atomization without the use of air.

22. The Defendant is wrongfully using its Starkey et al. patents Nos. 2,685,536 and 2,794,417

(a) to coerce the public into leasing equipment from the Defendant, all to the detriment of the public and ulti-

mate consumer of products processed under the Starkey et al. patents by licenses and leases, and

(b) to coerce manufacturers of spray equipment, such as the Plaintiff, into not making and selling such
854 equipment as is, for example, shown in the aforesaid drawing SK-661 of the Plaintiff.

23. The Defendant, its officers and aforesaid alleged inventors of Starkey et al. patents, individually and collectively, have conspired with each other and with others in restraint of trade and monopolizing, through patents and illegal agreements, of the electrostatic spray equipment business in interstate commerce, contrary to the antitrust and anti-monopoly laws of the United States, and in so doing have committed illegal acts of unfair competition, all to the detriment of the public and to the damage of the Plaintiff.

24. It is further alleged that Defendant should be held estopped from asserting the aforesaid Starkey et al. Patent Nos. 2,685,536 and 2,794,417 against the Plaintiff by virtue of the Defendant's aforesaid wrongful acts in illegal restraint of trade and in contravention of the antitrust laws of the United States of America.

25. (a) Defendant has substantially a complete monopoly in the United States of airless electrostatic liquid spray coating systems in its leasing program;

(b) in which it has coupled the granting of an equipment lease with the granting of a patent license as a single package deal;

(c) in which it has never leased equipment without also requiring the lessee to take a patent license;

(d) in which it has never granted a patent license without at the same time leasing equipment;

855 (e) in which it has required lessees as a condition to receiving leased equipment to pay an initial fee of thousands of dollars which more than com-

pensated Defendant for the cost of manufacturing the equipment furnished;

(f) in which it has required lessees to turn over to Defendant patent licenses on inventions made or acquired by such lessees relating to the leased system;

(g) in which it has in its composite lease and license forms of agreement required recognition of the validity of not only patents taken out by Defendant but also of any patent rights acquired by Defendant from third parties;

(h) in which it has required lessees to accept a termination provision in leases which required the lessee, upon termination of the lease, to surrender to Defendant all of the leased equipment without receiving any refund for the initial fee of thousands of dollars paid by the lessee;

(i) in which Defendant has provided in its composite lease and license agreement forms for the furnishing by Defendant of services and replacement parts to the lessees;

(j) in which Defendant has included in the leased equipment numerous unpatented parts not embraced by the claims of the Starkey et al. letters patents in suit;

(k) in which in its leases, Defendant has received full compensation, dollarwise, for the manufacturing cost of the major item of the equipment leased, namely the power pack, which is not covered by any of the claims of the Starkey et al. letters patents in suit;

(l) in which Defendant has, in certain of its leases, granted more favoable terms to paint or coating material manufacturers who in turn recommended the Defendant's leased system in their advertising;

(m) in which Defendant has refused to grant spray
856 equipment manufacturers, such as the Plaintiff herein, a license under the Starkey et al. patents in suit unless such manufacturers sell the licensed spray equipment only to customers licensed by defendant;

(n) in which Defendant in its license-lease agreements did not specifically identify by number any of its patents which applied directly to the equipment being leased, thus requiring licensees to recognize the validity of any patents considered by Defendant to be applicable, even though not identified; and

(o) in which Defendant has required the payment of a fee for the use of reciprocators in its leased systems even where Defendant did not supply such reciprocators to the lessee.

26. The Defendant has

(a) engaged in interstate commerce; and

(b) in the course of such commerce leased electrostatic spray coating equipment for use within the United States;

(c) said leasing being on the condition, agreement, or understanding that the lessee should not use or deal in the equipment of a competitor or competitors of Defendant; and

(d) thereby lessened competition or tended to create a monopoly in the field of electrostatic spray coating equipment.

27. Defendant has illegally exploited the Patent System of the United States by acquiring patent rights from outside the Defendant's organization for the purpose of restricting entry of competitors into the field of electrostatic spray coating equipment.

28. Defendant has extended its monopoly in the field of electrostatic spray coating equipment by requiring licensees, as a condition for receiving a license, to license 857 back to Defendant royalty-free, patent rights in inventions made in the airless electrostatic spray coating field by such licensees.

29. Defendant has secured patent rights from outside parties for the purpose of intimidating and overwhelming and coercing the trade into dealing only with the Defendant.

30. Defendant's predecessor, Harper J. Ransburg Company, entered into an agreement in restraint of trade with the Behr-Manning Corporation dividing the field of electrostatic coating between the parties thereto. Defendant has succeeded to all of said predecessor's rights under said agreement, and in furtherance of the purposes thereof, has coerced the trade into dealing only with Defendant in the field of electrostatic spray coating of liquids.

31. Defendant, by licensing its patents only as a package, has enlarged the patent monopoly of particular patents for the exploitation of the monopoly of its other patents.

32. Defendant, by licensing its patents only as a package, has enlarged the patent monopoly of particular patents for the exploitation or promotion of a business not within the patents.

33. Defendant, through its license and lease agreements, has created a perpetual monopoly in the field of electrostatic spray coating equipment, said monopoly extending beyond the term of any of Defendant's patents which may apply to such equipment.

34. As far as Plaintiff is advised, Defendant owns 858 100% or substantially 100% of all airless electrostatic spray coating systems in use in the United States. Defendant does not sell such systems to users.

35. By its policy of leasing, but not selling, airless electrostatic spray coating systems, and imposing the conditions recited in such leases, Defendant has restrained the development and growth in the United States of business in:

(a) making and selling repair and replacement parts for such systems; and

(b) buying and selling used airless electrostatic spray coating systems.

36. Defendant, in its leases, exerts substantially complete monopolistic control over its lessees by:

(a) requiring lessees to license back to Defendant, royalty-free, all inventions made in the field of airless electrostatic spray coating by such lessees;

(b) retaining the right to cancel such leases and remove the leased equipment from the premises of the lessee, without cause;

(c) retaining the right to make changes in the equipment supplied to lessees;

(d) making it economically impossible for lessees to procure replacement parts for the equipment on the open market;

(e) making it economically impossible for lessees to secure servicing of such equipment in the open market;

(f) making it impossible for its licensees to divest themselves of defendant's equipment without suffering a complete loss of their investment in such equipment.

37. Plaintiff further alleges Defendant wrongfully procured its Letters Patents Nos. 2,685,536 and 2,794,417 859 by unfrue representations in connection with their procurement, all to the end of furthering its program of unfair competition, illegal restraint of trade, and violation of the United States antitrust laws.

38. Defendant's licensing program in airless electrostatic spray coating to the extent that it is based upon the Starkey et al. patents Nos. 2,685,536 and 2,794,417, is in violation of the United States antitrust laws, since said patents are invalid:

(a) As lacking novelty over the prior art;

(b) As being indefinite, ambiguous and incomplete;

(c) As involving claims not supported by the specifications of said patents;

(d) As involving claims directed to mere aggregations and old combinations;

(e) As embracing claims constituting a fraud on the public because of the deceptive and misleading character of the descriptions of such claims;

(f) As embracing claims broader than the patent disclosures;

(g) As embracing claims wherein the patentees knowingly patented the ideas of others; and

(b) As embracing claims constituting double patenting over previously issued patents.

Wherefore, Plaintiff prays:

A. That an injunction be issued by this Court restraining the Defendant, their agents, officers, servants, employees, and attorneys from using the Defendant's patents, including the said Starkey et al. Patents in suit, from monopolizing and restraining trade in interstate commerce, and from wrongfully employing said patents by threatening to or suing Plaintiff or any of its customers for infringement thereof, and from attempting to enjoy the monopoly of said patents by an agregegation thereof or otherwise and from interfering or attempting to interfere with or damage the business of the Plaintiff in interstate commerce contrary to the antitrust, anti-monopoly and restraint of trade laws of the United States.

B. For a judgment under the provisions of Section 15, Title 15, of the United States Code for three-fold the damages sustained by the Plaintiff, the costs of this suit, and reasonable attorneys' fees as provided.

C. That the Defendant be required to account to the Plaintiff for loss of profits and damages sustained by reason of Defendant's unlawful conduct.

D. The Court grant the Plaintiff such other and further relief as it may deem just and equitable.

Harold B. Hood,
1001 Hume-Mansur Building,
Indianapolis 4, Indiana,
Charles F. Meroni,
Otto R. Krause,
Hill, Sherman, Meroni, Gross & Simpson,
53 West Jackson Boulevard,
Chicago 4, Illinois,
Attorneys for Plaintiff.

Receipt of four (4) copies of the above and foregoing substituted Cross-Counterclaim is acknowledged this 19th day of November, 1958.

V. A. Trask,

Attorney for Defendant.

885 United States District Court

(Caption—56-C262)

DEFENDANT'S SUBSTITUTED ANSWER TO PLAINTIFF'S SUBSTITUTED CROSS-COUNTER-CLAIM.

(Original Filed February 18, 1957).

First Defense.

For its First Defense, Defendant Ransburg Electro-Coating Corp. answers Plaintiff's Cross-Counterclaim as follows:

1. Defendant admits the averments of Paragraph 1.

2. Defendant admits the averment in Paragraph 2 that "the amount in controversey is in excess of three thousand dollars," and denies the remaining averments of Paragraph 2.

3. Defendant admits the averments of Paragraph 3.

4. Defendant admits the averments of Paragraph 4.

5. Defendant admits the averments of Paragraph 5.

6. Defendant admits the averment in Paragraph 6 that "The Defendant has for a number of years and is presently licensing under its United States Letters Patents processes for electrostatically" spray painting articles "and sells leases equipment adapted to practice such processes, the products made under such licenses and by such equipment being widely used in interstate commerce

throughout the United States." Defendant denies the remaining averments of Paragraph 6

7. Defendant admits the averments of Paragraph 7.

8. Defendant admits the averments of Paragraph 8.

9. Defendant admits the averment in Paragraph 9 that "Defendant has and is presently granting licenses under the aforesaid Starkey et al. patents," and that such licenses under Starkey Patent No. 2,685,536 are "for using the method or process thereof and which process is known as the 'No. 2' or airless type process." Defendant denies the remaining averments of Paragraph 9.

10. Defendant denies the averments of Paragraph 10.

11. Defendant denies the averments of Paragraph 11.

12. Defendant admits the averment in Paragraph 12 that the Plaintiff has "developed a paint sprayer which it is capable of manufacturing." Defendan lenies the remaining averments of Paragraph 12.

13. Defendant admits the averment in Paragraph 13 that "The Defendant, in a letter dated July 12, 1956, submitted to the Plaintiff its license forms Nos. 439 and 440 as b ing standard forms of Defendant." Defendant denies the remaining averments of Paragraph 13.

14. Defendant admits the averment in Paragraph 14 that "On information and belief, the Plaintiff understands that the Defendant has, in its licensing and leasing program" and "beginning about January of 1948 to the date of the commencement of this action, employed 45 different forms of agreement." Defendant denies the remaining averments of Paragraph 14.

15. Defendant admits the averment in Paragraph 15 that "On information and belief, the Plaintiff understands that up to the filing of the original complaint herein the Defendant has granted 733 licenses" and "of which 463

were in force and effect on the date of the filing of the complaint herein." Defendant denies the remaining averments of Paragraph 15.

16. Defendant admits the averments of Paragraph 16.

17. Defendant admits the averments of Paragraph 17.

18. Defendant denies the averments in Paragraph 18.

19. Defendant denies the averments of Paragraph 19.

20. Defendant denies the averments of Paragraph 20.

21. Defendant denies the averments of Paragraph 21.

22. Defendant denies the averments of Paragraph 22.

23. Defendant denies the averments of Paragraph 23.

24. Defendant denies the averments of Paragraph 24.

25. Defendant admits the averment in Paragraph 25 (d) that " it has never granted a patent license without at the same time leasing equipment;".

Defendant admits the averment in Paragraph 25 (h) that "it has required lessees to accept a termination provision in leases which required the lessee, upon termination of the lease, to surrender to Defendant all of the leased equipment without receiving any refund for the initial fee of thousands of dollars paid by the lessee;".

Defendant admits the averments in Paragraph 25 (i) that "Defendant has provided in its composite lease and license agreement forms for the furnishing by Defendant of services and replacement parts to the lessees;".

Defendant denies the remaining averments of Paragraph 25.

26. Defendant admits the averments in Paragraph 26(a) and (b). Defendant denies the averments of Paragraphs 26(c) and (d).

27. Defendant denies the averments of Paragraph 27.

28. Defendant denies the averments of Paragraph 28.

29. Defendant admits the averment in Paragraph 29 that "Defendant has secured patent rights from outside parties." Defendant denies the remaining averments of Paragraph 29.

30. Defendant admits the averment in Paragraph 30 that "Defendant's predecessor, Harper J. Ransburg Company, entered into an agreement" • • • "with the Behr-Manning Corporation," and that "Defendant has succeeded to all of said predecessor's rights under said agreement." Defendant denies the remaining averments of Paragraph 30.

31. Defendant denies the averments of Paragraph 31.

32. Defendant denies the averments of Paragraph 32.

33. Defendant denies the averments of Paragraph 33.

34. Defendant admits the averment in Paragraph 34 that "Defendant does not sell such systems to users." Defendant denies the remaining averments of Paragraph 34.

35. Defendant denies the averments of Paragraph 35.

36. Defendant denies the averments of Paragraph 36.

37. Defendant denies the averments of Paragraph 37.

38. Defendant denies the averments of Paragraph 38.

Second Defense.

For its Second Defense, Defendant answers Plaintiff's Cross-Counterclaim as follows:

1. The relief sought in Paragraph B of the Prayer of Plaintiff's Cross-Counterclaim for treble damages under the provisions of Section 15, Title 15, of the United States Code, being an action to recover a penalty, the same is barred by the statute of limitations to the extent to which

said cause of action accrued more than two years prior to December 10, 1956, the date of the filing of said Cross-Counterclaim herein.

Ransburg Electro-Coating Corp.
By Verne A. Tfask,
801 Hume-Mansur Building,
Indianapolis 4, Indiana.
Attorney for Defendant.

Of Counsel:

Elbert R. Gilliom,
1340-1344 Consolidated Building,
Indianapolis 4, Indiana,

Harry T. Ice,
951 Consolidated Building,
Indianapolis 4, Indiana,

James P. Hume,
First National Bank Building,
38 South Dearborn Street,
Chicago 3, Illinois.

Acknowledgment of Service.

Service of copies of the foregoing Defendant's Substituted Answer to Plaintiff's Substituted Cross-Counterclaim (Original Filed February 18, 1957) is acknowledged this 26th day of November, 1958.

Harold B. Hood, by CDE
Counsel for Plaintiff.

INTERROGATORIES AND ANSWERS.

1

Plaintiff's Interrogatories	Answer
2. (a) Has defendant, in its licensing program, granted any licenses in which the licensee was licensed under both patents relating to electrostatic spraying with air and without the use of air and, if so,	2. (a) Certain of defendant's licensees have held or now hold, concurrently, licenses from defendant to electrostatically spray coat both with air and without the use of air.
(b) what is the identity and date of each of such licenses?	(b) See list, Exhibit "A" attached.
3. (a) How many licenses have been granted by defendant on electrostatic spraying,	3. (a) 732, up to the date of the filing of the complaint.
(b) how many of those licenses are still in force and effect and	(b) 463, up to the date of the filing of the complaint.
(c) what are the dates of all licenses that have been granted and the names of the licensees of all such licenses?	(c) Exhibit "B", attached lists the names and locations of the licensees and the dates of all licenses granted by defendant up to the date of the filing of the complaint for electrostatic spray coating or articles. In addition to the licenses identified in Exhibit "B," defendant on commencement of business acquired from its predecessor in business a number of licenses with companies engaged in electrostatic spray coating of articles.
4. (a) Has the defendant ever granted a patient license relating to airless electrostatic spraying as to which it did not enter into a lease agreement with the licensee and, if so,	4. (a) To date all agreements by which defendant has licensed the use of its airless electrostatic spray coating process contain a provision requiring defendant to furnish to the licensee some, but not all, of the equipment for using the process.
7. (a) Is it not a fact that the defendant, in its licensing and leasing program, repeatedly made changes in its licenses and leases and, if so,	7. (a) Yes.
(b) did existent licensees get the benefit of such changes and	(b) In certain instances.
(c) who were such licensees?	(c) See list, Exhibit "C" attached.
8. (a) How many different forms of licenses and leases has the defendant used in its licensing and leasing program,	8. (a) (b) and (c) All of defendant's agreement forms relating to electrostatically spray coating of articles are attached as Exhibits D-1 through D-45 and such exhibits are self-explanatory.
(b) what is the date that each the same was adopted and	
(c) what is the number or other identity given to each form of lease and license?	

2

Plaintiff's Interrogatories	Answer
10. What part of the defendant's cost of each piece of leased equipment is recovered by the defendant at the time of its granting a lease and a license under its patents?	10. All of it.
11. (a) Does the defendant, as a part of its patent licensing and leasing program, render engineering and technical services to its licensees and, if so,	11. (a) Yes.
(b) to what extent and	(b) To all licensees to the extent necessary for their effective use of the process.
(c) wherein is defendant compensated for same?	(c) From fees paid by licensees.
12. (a) Does the defendant know of any other supplier in the trade in the United States of America of wireless electrostatic spraying equipment, and if so,	12. (a) No, not as a unit.
(b) What is the name or names of such other supplier or suppliers and	(b) No answer required.
(c) where is such supplier located?	(c) No answer required.
14. (a) Does the defendant apply any patent markings to its leased electrostatic spraying equipment and, if so,	14. (a) No.
(b) what does the marking include in each instance?	(b) No answer required.
16. (a) Does the defendant know of anyone else in the United States of America that is manufacturing and selling electrostatic spraying equipment for atomizing liquid into discrete particles without the use of air and, if so,	16. (a) No.
(b) what is the name of such manufacturer and	(b) No answer required.
(c) where is such manufacturer located?	(c) No answer required.
17. (a) Has the defendant, in addition to leasing its electrostatic equipment for atomizing liquid into discrete particles without the use of air, also sold such equipment to the trade and, if so,	17. (a) No.
(b) to whom	(b) No answer required.
(c) when was such sale made and	(c) No answer required.
(d) did such equipment have a patent marking indicating Starkey Patent No. 2,685,536?	(d) No answer required.

3

Plaintiff's Interrogatories	Answer
20. (a) Has any licensee of defendant under the Starkey patent No. 2,685,536 ever paid any royalties to defendant on a practicing of the patented Starkey process with any equipment other than what was leased by defendant and, if so,	20. (a) All licensees under Starkey patent 2,685,536 who have paid royalties to defendant have been furnished by defendant some equipment for use in the licensed process. In all instances such licensees also obtained from other sources additional equipment for use in the licensed process.
(b) who made such payment or payments and	(b) No answer required.
(c) when?	(c) No answer required.
21. (a) What is the lowest voltage the defendant has ever used in conjunction with *airless* electrostatic spraying equipment at which it obtained atomization of the particular liquid being sprayed,	21. (a) Defendant has electrostatically atomized conventional liquid coating materials commercially at a voltage as low as approximately 20,000 volts.
(b) when and	(b) December, 1955 and subsequently.
(c) where was such spraying conducted?	(c) 1234 Barth Avenue, Indianapolis, Indiana and subsequently at other places.
22. (a) What was the highest voltage the defendant has ever used in conjunction with its *air type* of electrostatic spraying equipment,	22. (a) Defendant's electrostatic coating processes using compressed air spray have been operated commercially at a voltage as high as approximately 90,000 volts.
(b) when and	(b) July, 1951 and subsequently.
(c) where was such equipment operated?	(c) Roberts Manufacturing Company, Cleburne, Texas and subsequently at other places.
23. (a) Is it not a fact that the voltage at which atomization occurs in the use of defendant's aforesaid airless electrostatic spraying process depends upon the nature of the liquid being sprayed and	23. (a) Electrostatic atomization of a given liquid occurs over a wide range of voltages, all other conditions being the same. The size of the particles so atomized depends to an extent on the nature of the liquid, under conditions of constant voltage and with all other factors constant.
(b) that generally the voltage required increases with the viscosity of the liquid and	(b) The degree of atomization usually suffers i.e., the particles become larger, as the viscosity of liquid being electrostatically atomized increases, other factors being maintained constant. However, it does not follow that deterioration of atomization resulting from increases in viscosity can be overcome merely by increasing the voltage applied.

4

Plaintiff's Interrogatories	Answer
(23 cont'd) .	(23 cont'd)
(c) what are the upper and lower limits of the voltage at which atomization can occur in the use of said process in the spraying of all different types of liquid handled thereby?	(c) As indicated in the above answer to portion (a) of this interrogatory, electrostatic atomization of a given liquid occurs over a wide range of voltages, the extreme limits of which defendant has not explored.
24. (a) Will defendant's aforesaid airless electrostatic spraying process atomize all kinds of known liquid and, if not,	24. (a) No.
(b) what are the limits of the range of liquids that can be atomized by such spraying process?	(b) Defendant does not know the limits of the range of liquids which can be atomized by such spraying process.
25. (a) Does temperature constitute a factor in the spraying of a liquid by defendant's aforesaid process of airless electrostatic spraying and, if so,	25. (a) Temperature of the liquid constitutes a factor in the spraying of the liquid in defendant's process of airless electrostatic spray coating.
(b) to what extent and	(b) To the extent that influences viscosity.
(c) if a range of temperatures is involved, what is the range?	(c) Defendant has not explored the limits of the range of temperatures involved.
26. In the use of defendant's aforesaid process of airless electrostatic spraying, when is a liquid particle a discrete particle from the standpoint of the practice of defendant's process?	26. In the use of defendant's process of airless electrostatic spray coating, the liquid particles formed as a result of atomization are discrete particles since they are separate, individually distinct, minute entities.
27. (a) What is the earliest date of invention as to Starkey Patent No. 2,685,536 that defendant will rely upon herein and	27. (a) As at present advised, on or about October 8, 1943.
(b) what are the activities there involved and	(b) and (c) Experiment involving electrostatic atomization of paint on or about October 8, 1943; disclosure to others on or about October 8, 1943 and subsequently; notebook entry and sketch by October 29, 1943; further tests on November 5 and 9, 1943; drawing of apparatus in operation on November 10, 1943; and additional operations of the process and testing of various apparatus thereafter.
(c) the dates of same that will be relied upon by defendant to establish such earliest date?	
29. Can the aforementioned Starkey patented process produce a coating of paint on an object which is held stationary with respect to the atomizing head?	29. Yes.

5

Plaintiff's Interrogatories	Answer
33. (a) Which of the forty-five forms of license previously filed herein by the defendant, in its answers to plaintiff's interrogatories, was used in the case of each of the 732 licenses granted by the defendant as set forth in the answer to Interrogatory 3, (b) what was the name of the licensee appearing on each form, (c) what was the date of each and (d) which of said licenses, in each instance, licensed the use of airless electrostatic spray coating of articles?	33. (a) (b) (c) and (d) See Exhibit E attached.
34. With further regard to the subject of Interrogatory No. 33, what patent numbers or patent application numbers were referred to or involved in each of the licenses, if any?	34. No patent or patent application numbers were listed or referred to in any license agreements of the defendant except as shown on Exhibit F attached.
35. (a) With further regard to the foregoing Interrogatory No. 33, which of the listed licenses was restricted only to airless electrostatic spray coating of articles and	35. (a) With the exception of the license dated May 25, 1951 to Chrom-Craft Corp. (Exhibit E—Page 8), all licenses indicated in Column III of that Exhibit are restricted to airless electrostatic spray coating.
(b) which of the aforesaid licenses comprise the 463 that are alleged to be still in force and effect?	(b) The licenses referred to in Interrogatory No. 35 (a) which are still in force are indicated in Column IV on the list attached hereto as Exhibit E.
36. With further regard to the licenses referred to in Interrogatory 33, what equipment was furnished in the case of each of them by the defendant as set forth in the answer to Interrogatory 4?	36. In the cases of the various licenses referred to in plaintiff's Interrogatories Nos. 33 and 4, the equipment furnished by defendant was similar in character but varied as to quantities, attachments and fittings, dependent upon the size and character of the installations. In each case the equipment furnished was listed in a record of shipment, an example of which is attached hereto as Exhibit G.
37. In connection with the defendant's answer to Interrogatory 3, (a) what was the name of the defendant's predecessor or predecessors and, (b) what was the identity of the licenses acquired from such predecessor with respect to the (c) name of the party, (d) the licensee, (e) date and	37. (a) Harper J. Ransburg Co., a partnership. (b) (c) (d) and (e) The licenses referred to in defendant's answer to Interrogatory No. 3 as having been taken over from defendant's predecessor are identified in Exhibit H attached.

6

Plaintiff's Interrogatories	Answer
(37 cont'd)	(37 cont'd)
(f) patents or applications involved in each of such licenses?	(f) In each license listed in Exhibit H, the licensee was licensed for a particular use wherein atomization is effected by compressed air and the licensee thereby obtained a license under all patent rights then held or thereafter acquired by Harper J. Ransburg Co. to the extent that such rights applied to such use, without express identification of any specific patent or patent application in the license agreement.
40. (a) How many licenses were granted by the defendant prior to the issuance of the Starkey patent on August 3, 1954 for airless electrostatic spray coating (without the use of air), and	40. (a) 171.
(b) what was the date of the first one granted?	(b) March 21, 1949.
41. (a) When did the defendant first publicly demonstrate its electrostatic airless spray coating process,	41. (a) July 26, 1951.
(b) where and	(b) 1234 Barth Avenue, Indianapolis, Indiana.
(c) to whom was same first demonstrated?	(c) Approximately 25 representatives of trade journals. Prior to the date in (a) above, private demonstrations were given to selected individuals on various occasions.
44. With further regard to defendant's answer to Interrogatory 11, (a) do the licenses and/or leases that have been granted specifically provide for technical service fees to be paid in each instance, and not,	(a) No. The only specific provision for a technical service fee is the provision, as in Form 439 (Exhibit D-36), that if defendant's installation supervisor is delayed in licensee's plant for any reason not chargeable to defendant, the licensee pays to defendant a per diem of $75.00 during such delay.
(b) on what percentage of the licenses or leases did the defendant obtain such service fees from the licensees?	(b) Defendant has been paid such per diem in respect to approximately 1½ per cent of its licenses.
47. (a) In the light of depositions taken by defendant herein, will the defendant contend that there was any confidential or secret disclosure of the subject matter of the application from which Starkey Patent 2,685,536 issued to representatives of the plaintiff prior to the issuance of the Starkey patent and, if so,	47. (a) No.

7

Plaintiff's Interrogatories	Answer
(47 cont'd) (b) when, (c) where and (d) to whom was disclosure or disclosures made?	(47 cont'd) (b) No answer required. (c) No answer required. (d) No answer required.
51. (a) When did the defendant indicate to any of its licensees or prospective licensees as to electrostatic spray coating that it was coming onto the market with an airless type of electrostatic spray coating process, (b) to whom was such representation made, (c) in what form and (d) by whom?	51. (a) Early in 1948. (b) William Halker of Electric Auto Lite Co. (c) Orally. (d) E. M. Ransburg.
52. (a) Has the defendant ever submitted a license under its Starkey patent alone without an accompanying proposed agreement for the furnishing of equipment by the defendant and, if so, (b) to whom was such license form sent and (c) when?	52. (a) Defendant has never submitted any license limited to its Starkey, et al, patent alone. (b) No answer required. (c) No answer required.
53. (a) Has the defendant ever offered to license, under the Starkey Patent No. 2,685,536, any manufacturer of spray coating equipment capable of practicing the process of the Starkey patent with the right to make and sell electrostatic emitters and, if so, (b) to whom was such offer made and (c) when?	53. (a) No. (b) No answer required. (c) No answer required.
54. With further reference to the subject of the previous interrogatory, No. 53, (a) has the defendant ever offered to license any supplier of spray coating equipment with the right to make and sell such equipment for practicing the process of Starkey Patent No. 2,685,536 without, at the same time, requiring that such licensee sell only to users or customers licensed by defendant and, if so, (b) when and (c) to whom?	54. (a) No. (b) No answer required. (c) No answer required.

8

Plaintiff's Interrogatories	Answer
59. (a) Have any of the licenses granted by defendant been under its Ransburg Patent No. 2,658,000 and, if so, (b) what is their identity?	59. (a) Yes. (b) Without a review of all license agreements and a search of all of Defendant's files, a complete list of all persons licensed under the particular patent could not be prepared, but the following are licensed under the patent referred to: Scoville Manufacturing Co. Taylor Wharton Iron & Steel Co. Thomas Industries, Inc.
61. Has Defendant, in its licensing program directed to airless electrostatic spray coating entered into licenses such as its forms Nos. 428 and 430, requiring licensees to grant back to Defendant, a royalty-free, non-exclusive assignable license, with right to sub-license, such license to be irrevocable except upon voluntary surrender by Defendant, any inventions, improvements, or any rights from any source under letters patent, domestic or foreign, pertaining to methods and apparatus for electrostatic atomization of liquids?	61. Defendant has entered into licenses under its forms Nos. 428, 429, 430, 431, 432, 433, 434 and 434-2 (Exhibits D-23 thru D-29 and defendant has entered into certain D-31 respectively), and in addition special experimental licenses, which licenses contain a provision generally similar to that set out in Interrogatory 61.
62. If the answer to the preceding Interrogatory is in the affirmative, (a) what is the date of each such license, (b) to whom was such license granted	62. (a) and (b). Exhibit E to defendant's answer to plaintiff's Interrogatory 33 contains the dates and licensees of each license granted on the form numbers specified in answer 61 above. The dates and licensees of such special experimental licenses referred to in answer 61 are as follows:

Licensee	Date of License
All Steel Equipment, Inc.	8-31-56
Anderson-Hickey Co., Inc.	6-12-57
Hugh J. Baker & Co.	5-1-57
Baxter Steel Equipment Co.	9-11-56
Bethlehem Steel Co., Inc.	11-30-56
Baugher Mfg. Co.	6-3-57
Colson Corp.	10-4-57
Eastern Venetian Blind Co.	6-14-49
E. I. DuPont de Nemours & Co., Inc.	4-26-56
Ferro Corporation	12-18-56
General Electric Co.	8-2-55 3-12-56

9

Plaintiff's Interrogatories

(62 cont'd)

(c) which of such licenses are still in force and effect?

Answer

(62 cont'd)

Licensee	Date of License
Hardy Division, Sheller Mfg. Co.	7-29-57
Hetherington & Berner	3-22-57
Hillenbrand Associates	9-27-57
Illinois Power Co.	5-16-57
Indiana Gear Works	7-16-57
King Seeley	11-7-57
Monroe Auto Equipment Co.	1-25-51
Murphy-Miller, Inc.	7-16-57
Pacific Paint & Varnish	6-13-55
Paramount Fabricating Co.	10-11-57
Pemco Corp.	6-21-56
Pittsburgh Corning Corp.	7-19-55
Pittsburgh Plate Glass Co.	7-1-55
Plantation Patterns	6-26-57
Seymour Tool & Engineering Co.	11-17-50
Speed Queen Division, McGraw Edison	10-11-57
Stewart-Warner Corp.	10-7-57
Studebaker-Packard Corp.	4-1-57
Superior Coach Co.	3-26-57

(c) All in Exhibit E listed as active in column IV and which used the form numbers specified in answer 61 above and all those listed in answer 62(a) and (b) above, except the following which have been terminated since commencement of suit:

Licensee	Date of License
Chromcraft Corp.	5-25-51
Heintz Mfg. Co.	12-18-53
Houdaille-Hershey Corp.	11-1-54
Miller Company	10-16-53
Norris-Thermador Corp.	7-6-54
Progress Mfg. Co., Inc.	9-17-53
Whirlpool-Seeger Corp.	12-4-52

63. Has the Defendant acquired patent rights in the field of electrostatic spray coating from parties outside the Defendant's organization, including licensees?

63. Yes.

64. If the answer to the preceding interrogatory is in the affirmative, what are
(a) the names of the parties from whom such rights were obtained,
(b) the numbers of the patents involved, and
(c) the dates on which such rights were acquired?

64. (a)(b) and (c).
Other than patent rights acquired at the time of defendant's organization from its predecessor, Harper J. Ransburg Co., the defendant has acquired rights in patents in the field of electrostatic spray coating from parties other than defendant's officers, employees and consultants in the following instances:
Research Corp. 2,097,233 and 2,221,338 acquired 10-7-48
Charles Kahan 2,548,477, acquired 3-12-51.

10

Plaintiff's Interrogatories	Answer
67. Has Defendant ever granted licenses to paint or other coating material manufacturers in which (a) the initial fee payable by such manufacturers was less than the initial fee charged to the other users for the same type of equipment, or (b) the minimum monthly fee payable by such manufacturers was less than the minimum monthly fee charged to other users for the same type of equipment?	67. (a) Yes. (b) Yes.
68. If the answer to either or both portions of the preceding interrogatory is in the affirmative, what are (a) the names of such paint or coating manufacturers (b) the dates on which such licenses were issued:	68. (a) and (b). Ditzler Color Division, Pittsburgh Plate Glass Co. 10-4-50 Pittsburgh Plate Glass Co. 7-1-55 Pacific Paint & Varnish Co. 6-13-55 E. I. DuPont deNemours & Co. 4-7-49 and 4-26-56 Pemco Corp. 8-21-56 Ferro Corp. 12-18-56
69. Has any paint or other coating material manufacturer ever advertised its paint or coating material for use with a coating process or apparatus of Defendant?	69. Yes.
71. (a) Does the Defendant own in excess of substantially two and one quarter million dollars' worth of leased electrostatic spray coating equipment plus replacement parts, and (b) if so, is at least 75% of such equipment designed for the airless type of electrostatic spray coating?	71. (a) and (b). (a) No. The aggregate approximate cost of equipment and replacement parts when shipped was in excess of $2,250,000. (b) On the basis of cost, at least 75% of such equipment was designed for the airless type of electrostatic spray coating.
73. Did the Ford Motor Company ever negotiate with Defendant for a paid-up license under any of Defendant's?	73. No, but a quotation was requested by Ford Motor Company on July 6, 1956 for a paid-up license with equipment.

11

Plaintiff's Interrogatories	Answer
74. If the answer to the preceding interrogatory is in the affirmative, what are (a) the dates of such negotiations, (b) the amount which Defendant proposed to charge Ford for such a license?	74. (a) The quotation was submitted on August 14, 1956. (b) The quotation submitted was as follows, as set forth in the "Proposal to Ford Motor Company for Equipment to Paint Hoods," a copy of which has heretofore been furnished to Plaintiff: "Ransburg will supply: "(a) one unit to apply finish enamel on the outside only to hoods for $32,500.00 to product (*sic.*) a maximum of 50,000 hoods per year, or "(b) one unit to apply finish enamel on the outside only to hoods for $267,000.00 without annual maximum limits. It is estimated that this unit is capable of applying 2.0 to 2.5 mills film thickness at approximately three hoods per minute, or, on a three-shift basis, approximately 720,000 hoods per year, or "(c) sufficient units to apply finish enamel on the outside only to all hoods produced by Ford in the U.S.A. for $700,000.00 plus $15,000.00 for each unit required. "A single unit consists of two reciprocating 25" disks, one voltage pack and controls, two insulated paint pumps, electrical cables and polyethylene tubing to supply current and paint to the disks, as shown on drawings No. 231823, and engineering drawings. Ford will supply conveyors, hangers, the metal enclosures, ventilation, and the reciprocating mechanisms to meet Ransburg's requirements. "Ransburg will also run the customary test demonstrations and installation supervision and instruction. "This proposal is subject to the protective clauses in Ransburg's regular agreement. "Terms of payment and shipment dates subject to agreement." Subsequently, at Ford's request, on September 11, 1956, defendant mailed to Ford its standard printed forms for licenses both with and without equipment. 75. No, other than the licensees.

Plaintiff's Interrogatories	Answer
75. Does the Defendant know of any concern or party other than Defendant which renders any servicing for Defendant's electrostatic spray coating equipment in the hands of Defendant's licensees?	
12	
78. Beginning in about May, 1953 did Defendant send out a form letter to its licensees identical or substantially identical in content to the letter to Altex Corporation dated July 15, 1953, a copy of which is attached hereto as "Exhibit A"?	78. Yes.
79. Did Defendant, in letters transmitting license and lease agreements after May, 1953 include in such letters a statement reading substantially as follows: "We understand that you wish this type of agreement rather than one under which we do not furnish these additional items."	79. Yes, but said letters transmitted proposed contracts for execution rather than consummated agreements.
80. (a) Does Defendant know of any prior writings from recipients of the letters referred to in the preceding interrogatory requesting Defendant to supply equipment as part of the agreement referred to in the quoted statement, and if so (b) what are the dates of such writings, and (c) from whom were they received?	80. (a) No, although there may be some such writings which might be found upon a search of the files. (b) and (c). No answer required.
81. (a) Has Defendant issued any licenses relating to electrostatic spray coating in which the duration of payments to be made by licensees was confined expressly by the terms of such license to the life of any patent or patents under which such license was granted, and if so, (b) who were the licensees involved in each such transaction, and (c) what were the dates thereof?	81. (a). No. (b) and (c) No answer required.
82. (a) Has Defendant issued any license in the fields of manufacturing abrasive articles, flock coated articles, and/or articles coated with fiber-shaped particles, and if so, (b) what is the identity of each such licensee, and (c) what is the date of each such license?	81. (a) No. (b) and (c) No answer required.

13

Plaintiff's Interrogatories

83. (a) Has Defendant received any inquiries for licenses in the fields of manufacturing abrasive articles, flock coated articles, and/or articles coated with fiber-shaped particles, and if so,
(b) what disposition was made of such inquiries?

Answer

83. (a) No, but on occasion defendant has received inquiries as to whether its processes and equipment are suitable for one or more of these purposes.

(b) Defendant has replied in substance that its process and equipment are primarily for electrostatic painting, and has informed the inquirer that Behr-Manning Company might be able to furnish the desired information.

84. In the list of equipment supplied by Defendant appearing as Exhibit "G" in Defendant's Answer to Plaintiff's Interrogatory No. 36,
(a) what is the identity of the claim or claims of each patent under which Defendant has acquired rights from outside parties as mentioned in Interrogatories 63 and 64 which apply to such equipment or the use thereof in the electrostatic spray coating of liquids?

84. None.

85. What is the amount of royalties and fees received year by year by the Defendant to the present date on the licenses which it has granted in the electrostatic spray coating field?

86. What is the amount of royalties and fees received year by year to the present date by the Defendant on its licenses for airless electrostatic spray coating?

85. and 86.
Total fees received year by year by defendant (and by defendant's predecessor) for its compressed air spray process (No. 1 Process) and for its airless process (No. 2 Process) since the commencement of the marketing of its electrostatic spray coating processes in 1944 are approximately as follows:

Year	No. 1 Process Fees	No. 2 Process Fees
1943	$ —	$ —
1944	47,000	—
1945	165,000	—
1946	270,000	—
1947	380,000	—
1948	555,000	—
1949	665,000	—
1950	810,000	6,000
1951	880,000	210,000
1952	820,000	535,000
1953	890,000	700,000
1954	820,000	1,075,000
1955	830,000	1,485,000
1956	720,000	2,220,000
1957	630,000	2,640,000

14

Plaintiff's Interrogatories	Answer
89. (a) Has Defendant or anyone else ever sold or offered for sale any second-hand or used equipment of Defendant for airless electrostatic spray coating, and, if so,	89. (a) No.
(b) to whom was such sale or offer to sell made?	(b) No answer required.
90. (a) Does Defendant license its electro-static spray coating process in foreign countries, and, if so,	90. (a) Yes.
(b) in each instance what is,	(b)
(1) the date of each such license	(1) and (2) See Exhibit K
(2) the identity of the licensee in each such license and	
(3) the terms under which such license was granted.	(3) Either a copy of the license agreement identified in Exhibit K is attached or its terms in substance are identified in Exhibit K by reference to forms comprising Exhibit D, previously given to plaintiff in answer to plaintiff's interrogatories.
92. Does Defendant own any foreign patents corresponding to Starkey et al., U. S. Patent No. 2,685,536, and if so,	92. Yes.
(a) in what foreign countries have such patents issued, and	(a) Canada
(b) what is the filing date issue date number of each such patent.	(b) September 29, 1945 September 21, 1948 No. 451,277
93. As to its charge of infringement of its apparatus patent 2,794,417, does defendant	93.
(a) rely upon any structure used by plaintiff not already embraced in the charge of infringement under defendant's method patent No. 2,685,536, and	(a) No.
(b) if the answer is in the affirmative, what is the additional structure which is relied upon by defendant?	(b) No answer required.

15

Plaintiff's Interrogatories	Answer
95. Did the defendant in connection with the prosecution of its alleged earlier application Serial Number 556,390, from which its process patent No. 2,685,536 issued, (a) ever file an appeal or a Bill of Complaint to any of the courts based on the Board of Appeal's decision dated December 18, 1953 affirming the Examiner's final rejection of apparatus claims 63, 65, 87 and 95, and (b) if so, what was the identity and date of such proceedings, and (c) what disposition was made of same, and (d) when?	95. (a), (b), (c), and (d). On February 15, 1954, defendant filed in the District Court for the District of Columbia, a complaint in an action entitled "William A. Starkey, Edwin M. Ransburg, and Ransburg Electro-Coating Corp. *vs.* Sinclair Weeks Secretary of Commerce, and Robert C. Watson, Commissioner of Patents," C. A. No. 625-54, seeking, in effect, reversal of the decision of the Board of Appeals of December 18, 1953, affirming the final rejection of apparatus claims 63, 65, 87, and 95 and certain method claims in said application Serial No. 556,390. On March 8, 1954, following allowance by the Patent Office on February 18, 1954, of said application as amended, such action was dismissed by stipulation.
96. In any of the proceedings involving the earlier application Serial No. 556,390, from which process patent 2,685,536 issued, (a) did the Patent Office ever make a requirement for division as between process and apparatus claims and (b) if so, when?	96. (a) No. (b) No answer required.
97. Who in the defendant organization made or approved of the decision to cancel all the apparatus claims No. 40, 44, 63, 65, 87, 94 and 95 from the earlier application Serial No. 556,390, from which the process patent 2,685,536, issued?	97. E. M. Ransburg, Vice President.
98. (a) When did the defendant first claim in a patent application of an airless electrostatic spraying apparatus the specific feature of having spaced atomizing points "sufficiently close together to permit the coating material to bridge the spaces therebetween" and (b) what was the identity of such application wherein such feature was claimed and (c) what was the identity by number of the first claim or claims claiming such feature?	98. (a) August 21, 1956 was the earliest date on which defendant presented in a patent application any claim to an airless electrostatic spray coating apparatus using the expression "sufficiently close together to permit the coating material to bridge the spaces therebetween", to describe the arrangement of points at which atomization occurs. (b) Serial No. 434,366, on which patent No. 2,794,417 in suit issued. (c) Claim 18 of the application which became claim 4 of said patent.

16

Plaintiff's Interrogatories	Answer
102. As far as the defendant knows, has any of its airless No. 1 electrostatic systems been used for (a) coating with abrasives, (b) coating with flocking, and (c) if the answer to a or b is in the affirmative, when and (d) by whom and (e) where?	102. (a) and (b). No. (c), (d), and (e). No answer required.
104. As far as the defendant knows, (a) has its licensee, Behr-Manning Corporation ever made, sold or leased airless type electrostatic spraying equipment for applying solid particle coating materials and if so	104. (a) No.
(b) when and (c) to whom was such equipment furnished?	(b) and (c). No answer required
105. Under the cross license agreement (Ex. VV) with Behr-Manning Corporation, dated September 26, 1944, how does the defendant determine when a coating is considered to be of the (a) "liquid particle type" as to which it is licensed and	105. (a) Under the terms of its agreement with Behr-Manning Corp. dated September 26, 1944, the defendant considers that a coating is of the "liquid particle type" as to which it is licensed under the Behr-Manning patents if such coating is a liquid at the time of atomization and is not used in the manufacture of abrasive articles or of flock-coated article or articles coated with fiber-shaped particles.
(b) when it is considered to be of the "solid particle type", as to which Behr-Manning is licensed?	(b) Defendant has had no occasion in connection with said agreement to consider whether any given coating is of a "solid particle type" inasmuch as Behr-Manning Corp.'s license under defendant's listed patents is not determined by the type of coating used, but is determined by the nature of the article manufactured.
106. Under the cross license agreement with Behr-Manning dated September 26, 1944, which party has the right to operate in the field of coating materials such as (a) wax (b) tars (c) plastic resins and (d) rosins?	106. Under the terms of defendant's agreement with Behr-Manning Corp. dated September 26, 1944, defendant has the right to use the patents and applications covered by the agreement with respect to coating materials such as (a) wax (b) tars (c) plastic resins, and (d) rosins to the extent that such materials are liquids when atom-

17

Plaintiff's Interrogatories	Answer
(108. cont'd)	(108. cont'd) ized and are not used for the manufacture of abrasive articles or flock-coated articles or articles coated with fiber-shaped particles, and Behr-Manning Corp. has the right to use such patents with respect to such materials when used for the purpose of manufacturing such articles.
111. As far as the defendant knows, have the parties to the cross license agreement dated September 26, 1944, between Ransburg and Behr-Manning Corp. whereby the electrostatic deposition field was divided into one of liquid particle coating and another of solid particle coating	111. Without adopting plaintiff's characterization of said contract, defendant answer Interrogatory 111 as follows:
(a) lived up to the provisions of such agreement, and	(a) Yes.
(b) is such an agreement still of force and effect, and	(b) Yes.
(c) if not, when was it terminated?	(c) No answer required.
115. Referring to the answer to Interrogatory 83a, b,	115. The identity of all inquiries and responses referred to in defendant's answer to plaintiff's Interrogatory 83 of which defendant knows, are as follows:
(a) what is the identity of all inquiries referred to therein and	(a) *Inquiries* Letter dated December 17, 1952 from American Wringer Co., Inc. Woonsocket, R. I. to defendant. Letter dated February 10, 1955 from Dewey and Almy Chemical Co. Division of W. R. Grace & Co., Cambridge, Mass., to defendant.
(b) the identity of all responses thereto?	(b) *Responses* Letter dated December 29, 1952 from defendant to American Wringer Co., Inc. Letter dated February 15, 1955 from defendant to Dewey and Almy Chemical Co.
117. (a) Was the defendant ever advised by Dr. Emery P. Miller or anyone else that prior to October 1943, it was old in the scientific arts to use an electrostatic field for effecting atomization and spraying of liquid particles and if so	117. (a), (b), (c), and (d). Since coming into existence, defendant has known that it was old, prior to October 1943, to use an electrostatic field for effecting atomization and spraying of liquids. At least one of the officers of defendant possessed such knowledge at the time of defendant's incorporation on January 1, 1948.
(b) what was the name of such person,	
(c) the identity of such prior use, and	
(d) the date when such advice or knowledge was received?	

18

Plaintiff's Interrogatories	Answer
122. (a) Who in the defendant company authorized or approved of its counsel adding to its patent application, from which the apparatus patent 2,794,417, issued Claim 18 of Amendment C (which now corresponds to Claim 4, charged to be infringed by plaintiff herein) and	122. (a) E. M. Ransburg.
(b) what was the identity of such authorization?	(b) Oral, at some time between August 8 and August 21, 1956.
123. (a) Who in the defendant's company or employ, divulged around July or August, 1956, to its counsel (prosecuting the application from which its patent 2,794,417 issued) the subject of plaintiff's electrostatic sprayer apparatus which had been disclosed in plaintiff's letter of July 5, 1956, to defendant referred to in the complaint herein	123. Defendant received no letter from plaintiff dated July 5, 1956 disclosing the nature of plaintiff's sprayer, but did receive the letter dated July 25, 1956 referred to in the complaint herein, enclosing a drawing of the sprayer designated SK-861, and answers as follows with respect to said letter and sprayer: (a) Defendant does not now know who communicated to its counsel the subject matter of said sprayer.
(b) on what date,	(b) Shortly after the receipt of said letter, on or about July 26, 1956.
(c) who was present at the time of disclosure, and	(c) Not now known.
(d) what was the identity of any letters or record made bearing in any way on such disclosure?	(d) Defendant knows of no letters or records bearing on said disclosure.
124. (a) Did defendant at any time during the more than twelve years, pendency of its applications from which its two patents 2,658,536 and 2,794,417 issued, ever assert prior to August 1956 any claim on airless electrostatic spraying in any pending application in the Patent Office wherein it was specified that the atomizing space points were "sufficiently close together to permit the coating material to bridge the spaces therebetween"	124. (a) No.
(b) if the answer is in the affirmative, what is the identity of each and every said claim?	(b) No answer required.
125. (a) Who in the defendant company authorized the filing in the United States District Court for the District of Columbia the Complaint in the case of Wm. A. Starkey, Edwin M. Ransburg and Ransburg Electro-Coating Corp. *vs.* Sinclair Weeks, Secretary of Commerce and Robert C. Watson, Commissioner of	(a) E. M. Ransburg.

19

Plaintiff's Interrogatories	Answer
(125. cont'd) Patents, C. A. 625-54 involving a suit under Section 4915, (b) to whom was such authority given, (c) when,	(125. cont'd) (b) The law firm of Schroeder, Hofgren, Brady and Wefner. (c) Shortly prior to the filing of said complaint.
(d) was the authority referred to in any way on a written paper, and (e) if so, what was the date and identity of such paper or papers?	(d) No. (e) No answer required.
126. Referring to Starkey et al *vs.* Weeks et al, C. A. 625-54, (a) who in the defendant company authorized dismissal of such suit on or about March 1954 (b) when,	126. (a) E. M. Hansburg. (b) At some time between February 18 and March 8, 1954.
(c) to whom was the authority given and (d) if in writing, what was the date of any and all paper writings or correspondence on such subject?	(c) The law firm of Schroeder, Hofgren, Brady and Wegner. (d) Not in writing.
127. (a) Did the defendant on or about March, 1954, enter into and file a stipulation of dismissal in Starvey *vs.* Weeks, C. A. 625-54 wherein it was recited: "the Examiner having found allowable the claims now presented in plaintiffs' application here in suit, and the Notice of Allowance thereof having issued, 'It is hereby stipulated that the present action be dismissed'." and	127. (a) Yes.
(b) was the application Serial Number 556,390 field Sept. 29, 1944, from which the Starkey et al process patent No. 2,685,536 was later issued on Aug. 3, 1954, the application that was in suit referred in the stipulation and	(b) Yes.
(c) at the time of the signing and filing of such stipulation were any of the apparatus claims 63, 65, 87 and 95 of said application Serial Number 556,390 on which a patent was prayed under section 4915 in said suit allowed in such application?	(c) No.
128. Is it not a fact that at the time of the filing of the stipulation of dismissal in the month of March 1954 (a) all of the apparatus claims including claims 40, 55, 63, 65, 87, 94 and 95 had been cancelled by an amendment dated Jan. 27, 1954, to application Serial Number 556,390 and	128. (a) At the time of the filing of said stipulation of dismissal in Mar. 1954, all of the apparatus claims, including claims 40, 55, 63, 65, 87, 94 and 95, of said application Serial No. 556,390 had been cancelled by an amendment dated Jan. 27, 1954, expressly without prejudice to applicant's right to file a divisional or continuation application directed to the apparatus features of their invention.

Plaintiff's Interrogatories	Answer
(128. cont'd)	(128. cont'd)
(b) no application of defendant was then pending in the Patent Office at the time of the dismissal embodying any such apparatus claims?	(b) Yes.
129. Is it not a fact that following the Court's dismissal of Starkey vs. Weeks, C. A. 265-54, brought under Section 4915 R. S. for the grant of a patent, the defendant requested on or about Feb. 15, 1954 the impounding of the records of such suit and	(a) Yes.
(b) if the answer is in the affirmative, what was the date of such request for impounding and	(b) On or about Mar. 15, 1954.
(c) what was the date of the order entered ordering the record of the suit to be impounded against access to the public, and	(c) Mar. 15, 1954.
(e) who in the defendant company authorized such impounding, and	(e) E. M. Ransburg authorized the request.
(f) to whom was such authorization addressed and	(f) Schroeder, Hofgren, Brady and Wegner.
(g) in what form, and	(g) Oral.
(h) when?	(h) At some time between Feb. 15 and Mar. 15, 1954.
133. (a) Has the defendant conducted any experimentation with regard to airless electrostatic coating to determine how large or how low the number of liquid particles should be to effect a satisfactory coating and	(a) No.
(b) if so, when were such tests made,	(b), (c), (d) and (e) No answer required.
(c) by whom,	
(d) with what liquids, and	
(e) what if any was the range of size of particles developed by such tests?	
134. Does the defendant in its No. 2 airless electrostatic system (which it relies upon for commercial success as to its Starkey et al patents in suit),	134.
(a) employ an electrostatic atomizing head from which liquid particles are emitted in an electrostatic field of sufficient strength to charge the particles for deposition on an article, and	(a) Yes in the sense that the atomizing head supports the liquid from which the particles are atomized.
(b) if the answer is in the affirmative, what "strength" in terms of units of electrical measurement is considered "sufficient" in such	(b) An average potential gradient on the order of 8,000 volts per inch between the atomizer and the work.
(c) if there is a range of "strength," what is that range?	(c) from about 5,000 volts to about 10,000 volts per inch average potential gradient.

21

Plaintiff's Interrogatories	Answer
135. Does the defendant in its No. 2 airless electrostatic system (which it relies upon for commercial success as to its Starkey et al patents in suit),	135.
(a) create an electrostatic charge differential between the particles and the article of a strength to move the particles toward the article sufficiently rapidly to deposit them thereon while still in a liquid state, and	(a) Yes.
(b) if the answer is in the affirmative, what is that "strength" in units of electrical measurement, and	(b) That resulting from the maintenance of an average potential gradient on the order of 8,000 volts per inch between the atomizer and the work.
(c) if there is an allowable range of "strength," what is it, and	(c) An allowable range of strength is such as results from maintenance of an average potential gradient of from about 5,000 volts to about 10,000 volts per inch between the atomizer and the work.
(d) what is considered in units of measurement to be satisfactory for a sufficiently rapid movement of the particles toward the article?	(d) That resulting from the maintenance of an average potential gradient on the order of 8,000 volts per inch between the atomizer and the work.
136. Does the defendant in its No. 2 airless electrostatic system (which it relies upon for commercial success as to its Starkey et al patents in suit),	136.
(a) use an atomizing applicator head to form liquid into a body having a plurality of closely spaced aligned exposed termini of relatively small area, and	(a) Yes.
(b) if the answer is in the affirmative, how close in terms of measurement do the termini have to be spaced for satisfactory coating, and	(b) In most cases, less than one-tenth inch apart.
(c) if there is an allowable range of closeness, what is the same, and	(c) An allowable range is from one-tenth to one-hundredth of an inch.
(d) what is considered, in such system in terms of units of measurement, to be a "relatively small area"?	(d) The area of a terminus having a diameter of a few thousandths of an inch.
137. Does the defendant in its No. 2 airless electrostatic system (which it relies upon for commercial success as to its Starkey et al patents in suit),	137.

22

Plaintiff's Interrogatories	Answer
(137. cont'd) (a) have means for feeding liquid in a relatively narrow stream to an applicator head and means at the head for spreading the stream to form it into a body of liquid coating material having an extent many times the maximum cross-sectional dimension of the stream, and	(137. cont'd) (a) Yes.
(b) if so, in terms of measurement, what does "many times" comprise, and	(b) About 25 or more.
(c) if there is a range, for said "many times," what is that range?	(c) From about 25 to 30.
138. Does the defendant in its No. 2 airless electrostatic system (which it relies upon for commercial success to its Starkey et al patents in suit), (a) provide for the moving of an article past and in spaced relation to a zone of atomization, and	138. (a) No, but Defendant's customers do.
(b) if the answer is in the affirmative, at what rate in terms of units of measurement must the article be moved to effect satisfactory coating, and	(b) At a rate which will result in the desired coating and which depends on the rate of coating-material atomization.
(c) what spacemust there be present between the article being moved and the zone of atomization, and	(c) Enough space to prevent sparking between the atomizer and the work at the voltage maintained.
(d) if there is a range of dimension as to either of the foregoing (b) and (c), what is that range?	(d) Since the rate of article movement depends upon the rate of coating-material atomization and since the latter rate is controlled by the customer, Defendant does not know the extremes of article speed employed by its customers. Defendant knows of one speed as low as about two and one-half feet per minute and another of over 80 feet per minute. So far as Defendant knows, the space maintained by its customers between atomizer and work varies between about 4½ inches and about 24 inches.
140. Does the defendant in its No. 2 airless electrostatic system (which it relies upon for commercial success as to its Starkey et al patents in suit), (a) distribute dispersed particles of liquid over an area having each of its dimensions many times greater than the minimum cross-sectional dimension of the stream at the points or termini of atomization, and	140. (a) Yes.

23

Plaintiff's Interrogatories	Answer
(140. cont'd)	(140. cont'd)
(b) if the answer is in the affirmative, what is the minimum cross-sectional dimension of the stream, and	(b) Usually about two to four thousandths of an inch.
(c) how many times greater than said minimum dimension is the area over which it is distributed, and	(c) Each dimension of the area over which the dispersed particles of liquid are distributed is usually several hundred times the minimum cross-sectional dimension of the stream.
(d) if there is a range of either of the foregoing dimensions of (b) and (c), what is such range?	(d) The range has never been determined by Defendant.
142. Does the defendant in its No. 2 airless electrostatic system (which it relies upon for commercial success as to its Starkey et al patents in suit),	142.
(a) have a high enough voltage gradient to establish a corona discharge when liquid is not being fed to the atomizing field, and	(a) Yes.
(b) when liquid is being fed to the field, does the atomizing of the liquid occur generally in the area where the corona discharge would normally occur, and	(b) Yes.
(c) is that area generally at or in close proximity to a sharp edge on an applicator head?	(c) Yes.
144. In defendant's No. 2 airless electrostatic system (which it relies upon for commercial success as to its Starkey et al patents in suit),	144.
(a) is there in every instance completely quiescent air between the points of termini of atomization and the article being coated, and	(a) Yes, as "quiescent" is defined in the file wrapper of Patent No. 2,685,536 in suit.
(b) if the answer is in the affirmative, is the air quiescent throughout the entire space separating the atomization point and the article, and	(b) Yes.
(c) does the centrifugal action of the atomizing head in the No. 2 system cause any turbulence whatsoever of air between the head and the article?	(c) The rotation of the atomizing heads in commercial No. 2 systems creates some movement or flow of air in the region between the head and the article; but Defendant does not know whether that flow is turbulent or whether it is smooth.

24

Plaintiff's Interrogatories	Answer
145. Does the defendant in its No. 2 airless electrostatic system (which it relies upon for commercial success as to its Starkey et al patents in suit),	145.
(a) atomize and disperse particles toward a surface to be coated spaced a substantial distance from the atomizing head, and	(a) Yes.
(b) if so, what is considered to be a substantial distance in terms of units of distance, and	(b) In systems currently in use, the minimum distance between the atomizing head and the surface to be coated is about five inches, which distance is regarded as substantial.
(c) if there is a range for such distance, what is that range?	(c) In systems currently in use, the distance ranges from about five inches to about two feet.
146. Does the defendant in its No. 2 airless electrostatic system (which it relies upon for commercial success as to its Starkey et al patents in suit),	146.
(a) employ a plurality of aligned mechanical closely spaced points in an atomizing head for atomizing and dispersing liquid material, and	(a) No.
(b) if so, how close must the points be spaced in terms of units or distance to be sufficiently closely spaced for effecting coating of the article?	(b) No answer required.
147. Does the defendant in its No. 2 airless electrostatic system (which it relies upon for commercial success as to its Starkey et al patents in suit),	147.
(a) employ more than one step or operation, for effecting atomization, dispersion and deposition of the coating liquid, and	(a) Yes.
(b) if so, what are the steps or operations that are employed?	(b) The steps include feeding the coating material at a controlled rate to the atomizing zone, maintaining a spacing of at least several inches between the head and the article to be coated, and maintaining between head and surface a potential difference sufficient to effect the atomization, dispersion and deposition.

25

Plaintiff's Interrogatories	Answer
149. Does the defendant in its No. 2 airless electrostatic system (which it relies upon for commercial success as to its Starkey et al patents in suit),	149.
(a) provide any separate mechanical means, such as tangible or physical points, for dividing the spray particles into finely divided, discrete spray particles, and	(a) No.
(b) if not, is there any physical means in the atomizing head itself to divide or preset the spray particles into finely divided discrete particles, and	(b) No.
(c) if so, how is that done?	(c) No answer required.
152. In connection with defendant's answer to Interrogatory 117, wherein it is said "defendant has known that it was old, prior to October 1943, to use an electrostatic field for effecting athomization and spraying of liquids.",	152.
(a) what is the name of the officer or officers who had such knowledge.	(a) E. M. Ransburg.
(b) what is the identity of the source or party or persons from which such knowledge was derived, and	(b), (c) and (d) Such knowledge was acquired from the United States Patent to Darrah, No. 1,958,406, cited by the Patent Office Examiner in the file wrapper of Starkey Patent No. 2,685,536 in suit.
(c) was any of such knowledge acquired in written form or reduced to writing, and	
(d) if so, what is the identity of each and all such papers in writing bearing in any way on such knowledge?	
154. In defendant's Admission No. 65, it is admitted: "Dr. Emery P. Miller observed that, upon shutting off the operation of the air type No. 1 electrostatic coating system, when the flow of compressed air from the air spray gun ceased before the flow of paint ceased, a jet of liquid paint was momentarily discharged adjacent the high potential electrodes in the area of the corona discharge, with the result that some atomization occurred." and defendant is now asked,	154.
(a) whether any means is provided in the air type No. 1 electrostatic coating system to prevent atomization by the electrostatic high potential electrode of the liquid during the use of the system, and	(a) No.

26

Plaintiff's Interrogatories	Answer
154. (cont'd)	154. (cont'd)
(b) if no such means is provided, is it a fact that at least some part of the liquid that is dispersed and deposited on an article is atomized by the high potential electrode, and	(b) Not to Defendant's knowledge.
(c) has defendant made any effort to determine what part of such liquid sprayed by the No. 1 system, if any, is atomized, dispersed and deposited by the high potential electrode, and	(c) No.
(d) when, and	(d) No answer required.
(e) with what results?	(e) No answer required.
156.	156.
(a) Was the initial contact with and leading up to the cross-license with Behr-Manning initiated by the letter from Behr-Manning, to defendant's predecessor company, dated November 22, 1940, and	(a), (b) and (c) Defendant's predecessor had no contact with Behr Manning prior to the letter dated November 22, 1940, from that company.
(b) if the answer is in the negative, was there any written correspondence or written memorandums pertaining thereto dated prior to November 22, 1940, and	
(c) if so, what are their identities?	
160.	160.
(a) Did the defendant or its predecessor ever receive in writing any notice of patent infringement from Behr-Manning, and	(a) No.
(b) if so, what is the date and identity of all such written notices of patent infringement?	(b) No answer required.
161.	161.
(a) Did the defendant or its predecessor ever notify in writing Behr-Manning of infringement of any of the defendant's patents, and	(a) No.
(b) if so, what is the date and identity of all such writing?	(b) No answer required.
164. In connection with defendant's answer to Request for Admission No. 14, wherein it admitted: "That an initial act of conception in connection with the subject matter of the Starkey and Ransburg patent in suit was the observation by Starkey of the behavior of a wet paint brush in an electrostatic field."	164.

27

Plaintiff's Interrogatories	Answer
164. (cont'd)	164. (cont'd)
(a) did defendant ever endeavor to commercialize the use of a paint brush for electrostatic atomizing and spraying paint or other liquid coating material, and	(a) No.
(b) if so, when and	(b) No answer required.
(c) what was the identity of such commercialization, and	(c) No answer required.
(d) is the Starkey et al process patent No. 2,685,536 in suit based upon the principle observed in the behavior of a wet paint brush in an electrostatic field observed by Starkey?	(d) In part.
165.	165.
(a) Did the operation of the behavior of the wet paint brush in an electrpstatic field observed by Starkey, as referred to in Request for Admission No. 14 include the step of maintaining, between the brush and the piece of paper (Exhibit No. B) which was coated, an electrostatic field which electrostatically effected atomization, dispersion and deposition of paint?	(a) The initial act of conception referred to in Defendant's reply to Request for Admission No. 14 did not involve any paper, but did involve existence between the brush and an opposed surface of an electrostatic field which electrostatically effected atomization, dispersion and deposition of pain on such surface.
166. Which of the issued patents listed in Exhibits A and B comprising part of defendant's agreement letter of January 18, 1954 with Avco Manufacturing Corp.,	166.
(a) disclose or cover electrostatic atomization of liquid particles *without the use of air* and	(a) Nos. 2,651,287; 2,568,611; 2,658,009; and 2,658,472.
(b) which cover the electrostatic atomization of liquid particles with the use of air?	(b) None.
167.	167.
(a) Have any of the patent applications identified or referred to in Exhibits A and B comprising part of defendant's agreement letter of January 18, 1954 with Avco Manufacturing Corp. as to the airless system issued into letters patent, and	(a) Yes.
(b) if so, what is the patent number and issue date of each such patent that has issued, and	(b) So far as Defendant knows, Patents Nos. 2,370,636; 2,376,343; and 2,770,219.
(c) which of such issued patents cover airless electrostatic atomization of liquid particles?	(c) None.

28

Plaintiff's Interrogatories	Answer
168.	168.
(a) Did the defendant purposely adopt the following language in its several printed forms of leasing and licensing, and with particular regard to the underscored conjunctions, as follows: Exhibit D-1, adopted January 4, 1948 "Whereas Ransburg owns certain United States letters patent *and* inventions and is licensed under others * * *" Exhibit D-23, adopted April 15, 1951 "Whereas Ransburg is the owner of or otherwise has the right to grant licenses under certain inventions, letters patent of the United States *or* patent applications * * *" Exhibit D-32, adopted January, 1955 "Whereas Ransburg is the owner of or otherwise has the right to grant licenses under certain United States letters patent *and* inventions * * *"	(a) Yes.
and	
(b) why did the defendant use the conjunction "and" to begin with in its first printed form of agreement on the No. 1 air type system, and then in its first printed agreement pertaining to the No. 2, or airless system (for D-23) use the conjunction "or," and later, in its printed form D-32, on the No. 2 system, use the conjunction "and"?	(b) So that the recital would correspond to the status of Defendant's patent rights at the time each form was prepared.
169. With regard to defendant's indication or notice beginning around 1948 to its licensees that it was coming on to the market with an airless electrostatic spray coating system,	169.
(a) approximately what percentage of its licensees thereafter leased the No. 2 system, and	(a) Of the licenses granted subsequent to the year 1950, when Defendant first indicated to its No. 1 system licensees that it was coming on the market with a new system, approximately 66 per cent were for the No. 2 system.
(b) approximately to what extent percentagewise has the No. 2 airless system supplanted the air type No. 1 system?	(b) Not known to Defendant.

29

Plaintiff's Interrogatories	Answer
170. (a) Was substantially the same pattern of selling its licensees initially on the No. 2 airless system used as was employed in selling its air type No. 1 system,	170. (a) Yes, in many respects.
(b) was the experience gained in leasing the No. 1 system of assistance in getting customers to lease the No. 2 system, and	(b) Defendant's experience in marketing its No. 1 system was of assistance in marketing its No. 2 system.
(c) when customers leased the No. 2 system in place of the No. 1, was there in any proportion of such leases no substantial interruption in the payment of fees to defendant by its customers, and	(c) Yes.
(d) did some customers contemporaneously lease both the No. 1 and No. 2 systems, and	(d) Yes; some customers have simultaneously been licensees of the No. 1 and No. 2 systems, as shown in Exhibit A to the answer to Plaintiff's Interrogatory No. 2 (b).
(e) if the answer to (d) is in the affirmative, what percentage of defendant's customers have leased both systems?	(e) Approximately 10 per cent, to the date of this suit, as shown by said Exhibits A and E.
171. (a) With regard to defendant's airless electrostatic spray coating leases granted prior to the issuance of its process patent No. 2,685,536, in suit, what issued patents, if any of the defendant, *disclosing* or *claiming* airless electrostatic spray coating process or equipment, covered the leased system, and	171. (a) Most systems licensed under airless electrostatic spray coating agreements entered into between Defendant and its customers prior to issuance of Patent No. 2,685,536, are regarded by Defendant as not covered by any patent of Defendant which was issued at the date of the agreement and which disclosed or claimed any airless electrostatic spray coating process or equipment. In some instances, however, there were among Defendant's Patents Nos. 2,568,611; 2,651,287; 2,658,009; and 2,658,472 (all of which disclose airless electrostatic spray coating) one or more which was issued at the time of the agreement and which is regarded by Defendant as covering the use licensed by the agreement.
(b) if defendant, at the time of the issuance of any of said leases did not have any patents that were applicable to the leased system, did the defendant in any instance advise the customer that it had no applicable issued letters patent, and	(b) Yes.
(c) that it only had pending patent applications which it considered applicable?	(c) Yes.

30

Plaintiff's Interrogatories	Answer
172.	172.
(a) What is the identity with regard to name and address of all persons or parties including attorneys and agents who participated in any way in the drafting of or vising of each of the license forms D-1 to D-38 and	(a) Edwin M. Ransburg, Indianapolis, Indiana, as a representative of Defendant's management, participated in most of the revisions of the Defendant's license forms and was assisted from time to time on various forms by some, but not all on each revision, of the following attorneys at law from and after the dates indicated: Harry E. Downer, 630 West New York Street, Indianapolis, Indiana, since the Defendant's incorporation Harry T. Lee, 951 Consolidated Building, Indianapolis, Indiana, since the Defendant's incorporation. Verne A. Trask, 801 Hume Mansur Building, Indianapolis, Indiana, since the Defendant's incorporation. Elbert R. Gilliom, 1344 Consolidated Building, Indianapolis, Indiana, since September, 1951. Jules L. Brady, 20 North Wacker Drive, Chicago, Illinois, since 1952. Merrill N. Johnson, 630 West New York Street, Indianapolis, Indiana, since 1952.
(b) what suggested change or revision, if any, was made by each of such persons?	(b) Who suggested what changes or revisions is not known to Defendant except that it is recalled that forms Nos. D-21 and D-36 were substantially contributed to by Elbert R. Gilliom and Jules L. Brady.
181.	181.
(a) In connection with the testimony of Donald C. Howarth (deposition transcript Pages 36-39) does defendant own any patent or patents covering reciprocators referred to in said deposition, and (b) if so, what are the numbers of such patent or patents?	(a) and (b) Defendant owns no patents on reciprocators as such, but does own Patent No. 2,808,343 which contains claims directed to a system that includes a reciprocator.

31

Plaintiff's Interrogatories	Answer
182.	182.
(a) With regard to defendant's "Pricing Guide for No. 2 Spray Process" dated July 15, 1953 (Exhibit JJJ-2) what basis was employed for arriving at Figure of forty percent of the initial fee as set forth in the third paragraph thereof, and	(a) The initial fee of Exhibit JJJ-2 for a non-equipment license, had one been desired, was expressed as 40 per cent of the initial fee for a license with equipment, the difference between said initial fees representing, on the average, the cost of the equipment furnished and installation supervision, plus a reasonable profit thereon.
(b) was the predetermined forty percent figure applicable regardless of the number or character of the patents involved, and	(b) Yes, because the initial fee is related to the value to the licensee of the system in operation and not to the number of patents involved.
(c) if (b) is answered in the negative identify any and all instances wherein the forty percent figure was varied to take into account different patent coverage?	(c) No answer required.
183.	183.
(a) As to the agreement No. 5228 with Avco Manufacturing Corp., was form No. 434 previously identified by defendant as D-29 allegedly adopted in April 1952, used in said agreement, and	(a) Yes.
(b) is said agreement, as modified in defendant's agreement letter of January 18, 1954, to Avco, still in force and effect, and	(b) Yes.
(c) does said agreement as executed include the "future inventions" Paragraph 11 of said form, and	(c) Yes.
(d) did such agreement as executed include the provision that "Ransburg shall have the right to terminate this agreement at any time after three years from the date of Ransburg's acceptance hereof upon six month's written notice to user"?	(d) Yes.
187.	187. Without adopting Plaintiff's characterization of Defendant's marketing program, Defendant answers this Interrogatory as follows:
(a) Is it a fact that as a general rule in the majority of instances, the customer in leasing defendant's equipment is never advised by defendant as to the patent numbers of the patents being licensed in defendant's portfolio of patents and patent rights and	(a) Yes.

32

Plaintiff's Interrogatories	Answer
187. (cont'd) (b) that defendant's salesmen marketing leases and licenses are not advised as to what patents are applicable to proposed customers installations?	187. (cont'd) (b) Yes.
189. With regard to the electrostatic coating equipment agreements of defendant, (a) has any customer ever objected to the three-year termination clause of the leasing agreement, and (b) what is the identity of each and every such customer, and (c) which of such objections, if any, was made on the basis of the fact that the three-year termination provision was too harsh, or (d) on the basis that the customer felt that its use of the equipment after three years was entirely at the mercy of the defendant?	189. (a) Yes. (b) Those identified in the above answer to Interrogatory 184(b), Jones & Laughlin Steel Corp., and perhaps others who might be identified by a search of Defendant's customer files. (c) and (d) Defendant does not know what basis or reason may have prompted objection to the three-year termination provision. The reason usually expressed was that the provision created uncertainty in respect to availability of the system after expiration of the three-year period.
190. (a) Has the defendant's leased, electrostatic spray coating systems ever been used, as far as defendant knows, to fill orders of the United States government and on which fees or patent royalties have been paid to the defendant under a patent license, and (b) if so, what are the identities of all such leases, and (c) which of such leases, as far as defendant knows, involve war equipment made for the United States government?	190. (a) Yes. (b) and (c) Those listed in Exhibit M attached and perhaps others ascertainable by Plaintiff through the inspection of Defendant's customer files.
193. By the expression, "the possible competition by them" referred to in the letter of March 4, 1943, "Re: BRUSH LICENSE," (a) was reference made to possible competition by the Brush Development Company, with whom Harper J. Ransburg Company had previously entered into a license agreement dated September 19, 1942, and	193. (a) Defendant has no more knowledge of the significance of the quoted expression than appears from the letter itself.

Plaintiff's Interrogatories	Answer
(b) did defendant or its predecessor encounter any such competition by Brush Development Company after its Gravley patent (application Serial No. 313,914, filed January 15, 1940, patent No. 2,359,476, issued into letters patent on October 3, 1944), was acquired by assignment in 1943?	(b) No.
33	
196.	196.
(a) Is the following statement quoted from a letter dated May 6, 1941 to Western Electric Company from the Ransburg Company's Counsel factually true: "While, at the present time, our client is experimenting with spraying equipment primarily for their own products and in their own plant, it is contemplated that if it develops successfully and there is any demand, their interest would then extend to the sale or lease of such equipment to others," and,	(a) It is true, as far as it goes.
(b) when did the defendant or its predecessor, Harper J. Ransburg Company, first decide to enter the market in the leasing of electrostatic spraying coating equipment?	(b) The first commercial installations were in 1944, although various marketing systems were explored prior to that date.
197.	197.
(a) Is it a fact that the following quoted language — "in connection with flock deposition, flock-coated material, or in the manufacture of abrasives and coated abrasives"— on Page 3 of defendant's license agreement dated October 7, 1948 with Research Corporation of New York was included in such agreement because patent rights as to the named fields had been specifically previously reserved for Behr-Manning Corporation, and	(a) The quoted expression was included in Defendant's contract of October 7, 1948, with Research Corporation as a result of the latter's representation that it had previously granted Behr-Manning an exclusive license in respect to the subject matter referred to in such quoted expression.
(b) the said agreement of October 7, 1948 was consummated with Research Corporation by and with the full knowledge of Behr-Manning Corporation, and	(b) Yes.
(c) that further Behr-Manning entered into a supplemental agreement dated August 26, 1949 with the defendant wherein Behr-Manning among other things agreed to the following:	(c) Yes.

Plaintiff's Interrogatories	Answer
"1. Behr-Manning agrees to reimburse Ransburg for all payments heretofore or hereafter made by Ransburg to said Research Corporation under the said contract of October 7, 1948, as minimum royalties or in respect to the use or practice, within the United States of America, by Ransburg and its sublicensees, of the rights purportedly granted said Harper J. Ransburg Company under said Meston and Wintermute patents by the agreement of September 26, 1944; provided, however, that the maximum liability of Behr-Manning hereunder shall be the sum of Nine Thousand Three Hundred and Fifty Dollars ($9,350)."	
34	
198. Is it a fact that (a) during the negotiations between the defendant's predecessor company and Behr-Manning Corporation the defendant became advised in a letter dated May 20, 1941, of the fact that Minnesota Mining and Mfg. Co. had had an interest in certain of the patents and patent applications ultimately included in the license agreement dated September 26, 1944, consummated with Behr-Manning Corporation, and (b) that the proposal that the defendant's predecessor and Behr-Manning Corporation disclose to each other their respective patent applications was opposed by Mr. W. L. McKnight, president of Minnesota Mining and Mfg. Co., as set forth in the following quotation from the letter dated May 20, 1941, from Behr-Manning to the Ransburg Company: "We have just received a letter dated May 15, from Mr. W. L. McKnight, President of Minnesota Mining & Mfg. Company which contains the following statement: "'I have a very strong feeling that it is unwise to disclose these pending patent applications, particularly where there may be a conflict of interests and my natural inclination in this matter is that it would be a mistake to make these disclosures.' "This quotation refers, as I have	198. (a) Defendant's predecessor received and read the letter of May 20, 1941, from Behr-Manning Corporation, but had no direct knowledge at the time as to whether the asserted interest of Minnesota Mining & Mfg. Co. in patents and patent applications ultimately included in the license agreement dated as of September 26, 1944, with Behr-Manning Corp. was a fact. (b) Defendant does not know, and defendant's predecessor did not know, whether the asserted opposition of W. L. McKnight to the disclocure of patent applications to each other by Defendant's predecessor and Behr-Manning was a fact.

Plaintiff's Interrogatories	Answer
previously explained, particularly to the Smyser reissue application and to one or two other pending electrostatic applications which the Minnesota Company is solely prosecuting but over which Behr-Manning will eventually exercise control to acquisition by assignment." and	
(c) If any of the foregoing is true, what is the specific identity of all patents and patent applications ultimately licensed by Behr-Manning Corporation to the defendant in which the Minnesota Mining & Mfg. Company had previously had an interest?	(c) To the knowledge of Defendant and its predecessor, Reissue Patent 22,419, issued Jan. 11, 1944, to Minnesota Mining & Mfg. Co. Defendant does not have, and so far as it now knows its predecessor did not have direct knowledge of any in-
35	
198. (cont'd)	198. (cont'd) terest possessed by Minnesota Mining & Mfg. Co. in any of the other patents or patent application licensed by Behr-Manning Corporation to Defendant's predecessor was advised by Behr-Manning that Minnesota Mining & Mfg. Co. was prosecuting patent applications Serial Nos. 200,550; 662,319; 401,484 and 452,532; all of which were among those licensed to Defendant's predecessor by Behr-Manning.
199. (a) Did the defendant's predecessor write a letter dated July 3, 1944 to Behr-Manning Corporation wherein among other things, it said: "I know that you will be interested to learn that our patent position has been improved by the issuance of five patents to us, and the acquisition of the Pugh patent. We have also been fortunate in effecting some very constructive improvements on which we have applied for additional patents." and	199. (a) Yes.
(b) If the answer in the affirmative, what is the identity of the foregoing referred to five patents and (c) What is the identity of any applications or patents that were applied for or issued on the "constructive improvements" referred to in the foregoing quotation?	(b) Nos. 2,247,963; 2,270,341; 2,334,648; 2,335,790 and 2,359,476. (c) Serial No. 492,204 now Patent No. 2,417,798; Serial No. 516,256, now Patent No. 2,486,877; Serial Nos. 516,778 and 596,870, now Patent No. 2,546,701; Serial No. 519,333, now Patent No. 2,425,652; Serial No. 519,332, now Patent No. 2,428,991; Serial No. 540,648, now Patent No. 2,444,144; and Serial No. 540,627.

54 Exhibit "A."

Name of Licensee	Dates of Electrostatic Spray Coating Licenses With Air	Without Air
American Seating Co.		
Grand Rapids, Mich.	5- 5-48	12-18-52
		4- 6-56
		4- 6-56
Amerock Corporation		
Rockford, Illinois	5- 2-47	4- 2-56
		8-30-56
Avco Manufacturing Corp.	5-30-49	
Richmond, Indiana	5-30-49	
Nashville, Tennessee		2- 2-54
Bennett Industries, Inc.		
Peotone, Illinois	6-23-52	6-23-52
Birtman Electric Co.		
Rock Island, Illinois	1-31-49	
Chicago, Illinois		7-12-55
Briggs & Stratton Corp.		
Milwaukee, Wisconsin	9-14-49	2-17-55
Butler Manufacturing Co.		
Galesburg, Ill.	1-11-49	2-20-51
Kansas City, Missouri	1-11-49	
ChromCraft Corp.		
St. Louis, Missouri	10-11-54	5-25-51
Daystrom Furniture		
Olean, New York	7-11-50	5-15-56
Delta Electric Co.		
Marion, Indiana	9-18-46	6-12-51
Detroit Controls Corp.		
Detroit, Michigan	7-12-48	6-14-54
R. E. Dietz Mfg. Co.		
Syracuse, New York	11- 1-48	1-22-54
Eastern Venetian Blind Co.		
Baltimore, Maryland	3- 9-46	10-26-51
The Electric Auto-Lite Co.		
Cincinnati, Ohio	11-15-48	
Woodstock, Illinois	6- 4-56	

Name of Licensee	Dates of Electrostatic Spray Coating Licenses With Air	Without Air
Sharonville, Ohio		12-22-53
55 Evans Products Co.		
Plymouth, Michigan	3- 5-54	7-13-54
Friden Calculating		
Machine Co., Inc.	6-17-48	
San Leandro, Calif.	6-17-48	6- 7-56
Gabriel Company		
Cleveland, Ohio	1-16-49	7- 1-53
General Electric Company		
Everett, Massachusetts	2-28-56	
Owensboro, Kentucky	8-31-48	
Cleveland, Ohio		5- 7-56
Jonesboro, Arkansas		7-26-55
Rockford, Illinois		4- 4-55
Louisville, Kentucky		10-29-52
		4-13-54
		4-13-54
		7-27-54
		11-29-54
		12- 1-54
		8- 2-55
		2- 9-56
		2- 9-56
		2-15-56
		2-15-56
		3-12-56
New Kensington, Pa.		11-25-52
		6-22-53
		11-17-53
Geuder, Paeschke & Frey	7-18-47	4- 2-51
Milwaukee, Wisconsin		
Grand Sheet Metal Prod. Co.	5-20-49	
Melrose Park, Illinois	11- 6-52	11-12-54
Hamilton Manufacturing Corp.	10-21-47	10- 5-54
Columbus, Indiana		7-24-52
		7-24-52

Name of Licensee	Dates of Electrostatic Spray Coating Licenses With Air	Without Air
Herman Hassinger, Inc.	4- 3-50	1- 8-52
Philadelphia, Pa.		
Heintz Manufacturing Co.	6-11-54	12-18-53
Philadelphia, Pa.		4- 5-55
The Hoover Co.		
North Canton, Ohio	8- 5-47	4-11-56
Kirsch Company	3-22-50	6-23-52
Sturgis, Michigan		3-14-56
56 Kwikset Locks, Inc.		
Anaheim, California	6- 6-47	10- 6-53
The L... a Register Co.		
Lima, Ohio	9-30-47	6-29-54
The Lobdell-Emery Mfg. Co.		
Alma, Michigan	4-19-54	4-30-54
		8-29-55
Miro-Flex Co., Inc.	3-18-47	2- 2-53
Wichita, Kansas		1-30-52
		9- 9-52
Mitchell-Bentley Corp.		
Ionia, Michigan	8-17-56	7- 2-56
Norge Div., Borg-Warner Corp.	7-24-45	
Muskegon Heights, Michigan	7-11-49	
Effingham, Illinois		4-24-56
Herrin, Illinois		12-28-55
Norris-Thermador Corp.		
Los Angeles, California	9-10-47	7- 6-54
Proctor Electric Co.		
Philadelphia, Pa.	8-15-51	
Baltimore, Maryland	11-11-48	6-19-51
Rheem Manufacturing Co.		
South Gate, California	3-15-51	
Sparrows Point, Maryland	6- 2-47	
Chicago, Illinois	6-21-51	4- 7-55
Houston, Texas		8-30-55
Richmond, Calif. (Pacific All Fiber Drums)		7-13-53
Sheller Manufacturing Corp.	7-24-46	

	Name of Licensee	Dates of Electrostatic Spray Coating Licenses With Air	Without Air
	Portland, Indiana		9-18-50
	Shwayder Brothers	7-20-50	
	Pittsburgh, Pa.		5- 6-54
	Detroit, Michigan	6-27-52	
	Ecorse, Michigan		5- 6-54
			5-11-54
	Denver, Colorado		5- 3-55
	A. L. Smith Iron Co.	5- 1-49	
	Chelsea, Massachusetts		6-27-55
57	Speed Queen, Div. of	4-30-47	4-27-56
	McGraw Electric Co.	4-30-47	4-24-51
	Ripon, Wisconsin		
	Studebaker-Packard Corp.	7-15-52	
	South Bend, Indiana	7-15-52	12-21-54
	Thomas Industries, Inc.		
	Ft. Atkinson, Wisconsin	2- 8-55	
	Princeton, Kentucky		7- 8-53
			12-20-51
	United Specialties Co.	11- 1-54	
	Chicago, Illinois		6-14-54
	United Specialties of		
	Birmingham, Inc.,—Ala.		2-11-53
	John C. Virden Co.		
	Cleveland, Ohio	7- 7-45	1- 7-54
	Wheeling Steel Corp.	4-21-50	
	Yorkville, Ohio	10-27-45	
	Martins Ferry, Ohio		8-23-55
	The Walker Mfg. Co. of Wis.	1-24-49	
	Racine, Wisconsin	5-11-49	
	Walker-Mich. Div. Walker		10-18-54
	Mfg. Co. of Wis.		
	Jackson, Michigan		
	Whirlpool-Seeger Corp.	6- 1-49	
	St. Paul, Minnesota	6- 1-49	
	Clyde, Ohio		5- 8-52
			4-20-54
			6- 3-55

Name of Licensee	Dates of Electrostatic Spray Coating Licenses With Air	Without Air
		2-15-56
		2-15-56
Hamilton, Ohio		3-16-56
Marion, Ohio		6-16-55
St. Joseph, Michigan		11- 8-51
		12- 4-52
		12- 4-52
L. A. Young Spring & Wire Corp.		
Detroit, Mich.	8- 9-51	
	8- 9-51	
	5- 7-47	
	8- 9-51	3-27-52
		2- 7-55
Chicago, Illinois		11- 6-51

58 Exhibit "B".

Name of Licensees	Dates of Licenses
AMF Cycle Co.	2- 6-56
Little Rock, Ark.	2-23-53
The A. P. Parts Corp.	2- 1-55
Toledo, Ohio	2-25-48
Acme Visible Records, Inc.	2- 7-50
Chicago, Illinois	12-11-52
Acoustics Mfg. Corp.	6-30-55
Detroit, Mich.	
Admiral Corp.	6- 7-56
Chicago, Illinois	
Ainsworth Mfg. Co.	9- 5-48
Detroit, Mich.	
Air-Maze Corp.	1-11-52
Cleveland, Ohio	
Airway Finishing Corp.	10-31-50
Chicago, Illinois	4-16-51
Algonquin Corp.	11-21-52
Detroit, Michigan	

Name of Licensees	Dates of Licenses
All-Lite Mfg. Co. Chicago, Illinois	11- 2-48
All-Steel Equipment Inc. Aurora, Illinois	8-19-53 4-21-52 2-11-55 5-16-55 5-15-56 8-31-56
Allen Industries, Inc. Leland and G. T. R. R. Detroit 7, Michigan	10- 7-52
Alsa Mfg. Co. Philadelphia, Pa.	7-22-54
Alside, Inc. Akron, Ohio	4-16-48
Altex Corp. Milwaukee, Wis.	7- 9-52
Aluminum Goods Mfg. Co. Manitowoc, Wisconsin	7- 3-51
America & Southern Corp. Nashville, Tenn.	12-15-54
American Meter Co., Inc. Philadelphia, Pa.	3-29-56
American Motors Corp. Kenosha, Wis.	8- 4-55
American Radiator & Standard Sanitary Corp. Buffalo, N. Y.	7-23-48 3-21-56 4-16-56
American Seating Co. Grand Rapids, Mich.	5- 5-48 12-18-52 4- 6-56 4- 6-56
American Welding & Mfg. Co. Warren, Ohio	5- 7-48
Amerock Corp. Rockford, Illinois	8-30-54 4- 2-56
O. Ames Co. Parkersburg, W. Virginia	1-31-55
Anderson-Bolling Mfg. Co. Grand Haven, Mich.	6-15-55 11- 3-53

	Name of Licensees	Dates of Licenses
	Andwall Mfg. Co. Oconomowoc, Wisconsin	6-19-53
60	Angleton Finishing Co. Newark, N. J.	12-30-48
	Applied Arts Mfg. Corp. Grand Rapids, Mich.	1-26-56
	Armstrong Rubber Mfg. Co. Des Moines, Iowa	8-31-50
	The Arnold Engineering Co. Los Angeles, Calif.	7- 7-52
	Arnold, Schwinn & Co. Chicago, Illinois	12-19-49 9-13-51
	Arnot-Jamestown Div. Aetna Steel Prod. Corp. Jamestown, N. Y.	7- 2-56 7-11-56
	Arrow Safety Device Co. Mount Holly, N. J.	8-28-50
	Arvin Industries, Inc. Columbus, Indiana	1-19-49 9-20-51 12-18-51 8-21-52 10-11-51
	The Ashtabula Mfg. Co. Ashtabula, Ohio	1-31-56 7-26-54
	Associated Pacific Venice, Calif.	1-13-56
	The Atlanta Stove Works, Inc. Atlanta, Ga.	12- 1-54
	Atlas Mfg. Co. St. Paul, Minn.	5- 8-56
	Atlas Novelty Co. Chicago, Illinois	10- 1-48
	Atlas Plating Co. Div. Associated Baked Enameling Co. Los Angeles, Calif.	5-10-56
61	Auer Register Co. Cleveland, Ohio	1- 9-50
	D. L. Auld Company Columbus, Ohio	6-20-51

	Name of Licensees	Dates of Licenses
	Auto Specialties Mfg. Co., Inc. St. Joseph, Michigan	10-30-53
	Avco Mfg. Corp.	3-30-49
	Crosley-Bendix Div. Richmond, Ind.	2- 2-54
	B. M. C. Mfg. Corp. Binghamton, N. Y.	1-17-52
	Barler Metal Prods. Inc. Goshen, Ind.	10-19-49 3-22-51 10-28-54
	Bastian Blessing Co. Chicago, Illinois	4-17-49
	Baxter Steel Equip. Co. Indianapolis, Ind.	9-11-56
	Bell & Howell Chicago, Illinois	1-31-49 10-23-51 6- 8-56
	Bendix Aviation Corp. Eclipse Machine Division Elmira, New York	5-22-51
	Beneke Corp. Columbus, Miss.	12- 1-55
	Bennett Industries Peotone, Illinois	6-23-52
	Berger Mfg. Div. Republic Steel Corp.	2-17-48
	Berns Mfg. Corp. Chicago, Illinois	11- 8-50
	Otto Bernz Co. Rochester, N. Y.	9- 1-53
62	Bethlehem Steel Co., Inc. Sparrows Point, Md.	5- 7-56
	Binkley Mfg. Co. Warrenton, Mo.	2-12-51
	Birtman Electric Co. Chicago, Illinois	7-12-55 1-31-49
	Bishop & Babcock Mfg. Co. Cleveland, Ohio	4- 3-51 1-11-52
	Bissell Carpet Sweeper Co. Grand Rapids, Michigan	5- 7-56

Name of Licensees	Dates of Licenses
Blake Mfg. Co. Clinton, Mass.	10-15-48
William R. Bootz Mfg. Co. Evansville, Indiana	8- 3-53
The Borg-Erickson Corp. Chicago, Illinois	4- 9-48
Borg-Warner Corp. Ingersoll Steel Products Div. Chicago, Illinois	11- 6-51
Bowen Products Corp. Auburn, New York	12-10-51
Briggs Mfg. Co. Detroit, Michigan	2-24-48 9-16-53
Briggs & Stratton Milwaukee, Wis.	7- 1-53 9-14-49 2-17-55
Bristol Sheet Metal Co. Wallingford, Conn.	2- 2-53
The Brunhoff Mfg. Co. Cincinnati, Ohio	4-18-56
63 The Brunswick Balke Collender Co. Muskegon, Michigan	7-22-54
Bryant Heater Div. Affiliated Gas Equip., Inc. Tyler, Texas	7- 6-53
Buch Mfg. Co. Elizabethtown, Pa.	6-30-55
Bunting Co., Inc. Philadelphia, Pa.	9- 7-48 7-18-49
The Busch & Thiem Co. Sandusky, Ohio	9-13-48
Butler Mfg. Co. Kansas City, Mo.	1-11-49 2-20-51
C & H Air Conditioning Fan Co. Atlanta, Ga.	1-12-48
California Parkerizing Co. Oakland, Calif.	10- 2-48
Cameo Doll Products Div. Noma Electric Corp. Port Allegany, Pennsylvania	6-22-48

	Name of Licensees	Dates of Licenses
	Carey-McFall Co. Montoursville, Pa.	6-29-51
	Carolina Metal Prods., Inc. Charlotte, N. C.	7- 6-55
	Carter Craft, Inc. Plano, Texas	11- 1-48
	Carter Machine & Tool Co. Dubuque, Iowa	1-27-48
	J. I. Case Co. Bettendorf, Iowa	2-11-48
64	Ceco Steel Products Corp. Pittsburgh, Penn.	11-30-51 5-25-54
	Century Plastic Products Inc. Cleveland, Ohio	5-17-55
	Cessna Aircraft Co. Wichita, Kansas	5- 5-48
	Chelsea Products, Inc. Plainfield, N. J.	12-14-53
	Chicago Rawhide Mfg. Co. Elgin, Illinois	11- 4-55
	ChromCraft Corp. St. Louis, Mo.	5-25-51
	Chrysler Corp. Automotive Body Div. Detroit, Mich.	9- 7-54 9-27-54
	Clemson Bros., Inc. Middletown, N. Y.	1-14-48
	Cleveland Heater Co. Cleveland, Ohio	5- 6-48
	Clinton Machine Co. Maquoketa, Iowa	4-20-51
	Columbia Mills, Inc. Saginaw, Michigan	11-25-48
	Columbian Enameling & Stamping Co., Inc. Terre Haute, Indiana	11- 6-52
	Combustion Engineering Superheater, Inc. Chattanooga, Tenn.	3-19-48

	Name of Licensees	Dates of Licenses
	Conco Eng. Works Mendota, Illinois	10-31-50
	Consolidated Gen. Prods. Inc. Houston 8, Texas	12-15-48
	Continental Steel Corp. Kokomo, Indiana	3-10-48
65	Coona Corp. Jersey City, N. J.	3-25-53
	Croname, Inc. Chicago 13, Illinois	2-24-50
	Cronstroms Mfg., Inc. Minneapolis, Minn.	9-28-55
	Crown Can Company Erie Ave. at H. Street Philadelphia, Penn.	2- 9-48 4-30-54 3-14-55
	James Cunningham, Son & Co., Inc. Rochester, New York	10- 8-53
	Curtis Lighting Inc. Chicago, Illinois	10-17-55
	Daisy Mfg. Co. Plymouth, Mich.	2- 9-53
	Day & Night Div. Carrier Corp. Monrovia, Calif.	9- 1-48
	Daystrom Furniture Olean, N. Y.	7-11-50 5-15-56
	Dazey Corp. St. Louis, Mo.	7- 6-54
	Defiance Automatic Screw Co. Div. of The Zeller Corp. Defiance, Ohio	5-29-52
	Del-Val Div. J. W. Rex Co. Lansdale, Pa.	9-28-54
	Delta Electric Co. Marion, Indiana	6-12-51
	Detecto Scales, Inc. Brooklyn, N. Y.	3-26-48
66	Detroit Controls Corp. Detroit, Mich.	7-12-48 6-14-54

	Name of Licensees	Dates of Licenses
	Detroit Hardware Mfg. Co.	2- 2-53
	Detroit, Michigan	
	Detroit Harvester Co.	
	Moto-Mower Div.	5-25-55
	Richmond, Ind.	1-31-49
	Dexter Industries, Inc.	2- 9-55
	Sub. of Nat'l Brass Co.	
	Grand Rapids, Mich.	
	R. E. Dietz Mfg. Co.	11- 1-48
	Syracuse, N. Y.	1-22-54
	Ditzler Color Div.	10- 4-50
	Pittsburgh Plate Glass Co.	
	Detroit, Mich.	
	D-All Finishing Co.	12-26-51
	Chicago, Illinois	4- 4-52
	Doehler-Jarvis Div.	2-17-55
	National Lead Co.	
	Pottstown, Pa.	
	Dominion Electric Corp.	4-19-48
	Mansfield, Ohio	8-25-53
	Donaldson Co., Inc.	5-19-48
	St. Paul, Minn.	
	Dryden Rubber Div. Sheller Mfg. Co.	11-12-53
	Chicago, Illinois	
	C. A. Dunham Co.	4-13-51
	Chicago, Illinois	1-21-55
	E. I. DuPont de Nemours & Co.	1-18-49
	Wilmington, Delaware	11- 4-49
		8-27-52
		11- 6-52
		9-23-55
		4-26-56
67	Durham Mfg. Corp.	3-27-56
	Chicago, Illinois	
	Eagle Mfg. Co.	10-25-49
	Wellsburg, W. Va.	
	Eastern Venetian Blind Co.	6-14-49
	Baltimore, Md.	10-26-51

Name of Licensees	Dates of Licenses
Eaton Mfg. Co.	4-14-48
Cleveland 3, Ohio	11- 3-48
	3-13-51
	11- 4-53
	4-19-54
	6- 4-54
Eaton Metal Prod. Corp.	10-10-51
Omaha, Nebraska	
Eaton Metal Products Co.	10-23-51
Denver, Colorado	
Eldon Mfg. Company	9- 1-48
Los Angeles 1, California	
The Electric Auto Lite Co.	11-15-48
Cincinnati, Ohio	9-27-50
	3- 5-51
	2-22-51
	4-11-51
	12-22-53
	6- 4-56
Electrocraft, Inc.	10-27-53
Mukwonago, Wisconsin	
Electrolux Corp.	1-31-49
Old Greenwich, Conn.	
Emerson Electric Co.	4-14-48
St. Louis, Mo.	
Enameled Steel & Sign Co.	3-21-49
Chicago, Illinois	1- 3-50
	6- 5-50
	2-19-51
	12- 1-52
	3-22-56
Embury Manufacturing Co.	11-16-58
Warsaw, N. Y.	
68 Enamelers & Japanners	2-11-48
Chicago, Illinois	
Endemano Plating Co., Inc.	5-28-48
Huntington Park, California	
The Erie Art Metal Co.	11-14-55
Erie, Pa.	

Name of Licensees	Dates of Licenses
Evans Products Co.	3- 5-54
Plymouth, Michigan	7-13-54
Excelsior Mfg. Co.	12- 4-52
Michigan City, Ind.	
F. & N. Lawnmower Co.	8-16-48
Richmond, Indiana	
R. D. Fageol Co.	9-18-50
Detroit 11, Michigan	
Federal Fabricators & Finishers	6-12-56
Chicago, Illinois	11- 5-51
Fiat Metal Mfg. Co., Inc.	1-28-49
Long Island, N. Y.	11-16-48
Fluorescent Fixtures of Calif.	10-21-54
San Francisco, Calif.	
Firecraft Corp.	10-26-49
Chicago 32, Illinois	
Forgee Metal Products, Inc.	12- 9-53
Paulsboro, New Jersey	
Free Sewing Machine Company	3-21-50
Rockford, Illinois	
Friden Calculating Mach. Co., Inc.	6-17-48
San Leandro, Calif.	6- 7-56
The Frito Co.	3-16-53
Dallas, Texas	
Frontier Mfg. Co.	8-23-48
Dallas, Texas	
69 Fuller Brush Co.	5-28-48
Hartford, Conn.	
The Fyr-Fyter Co.	12-11-48
Dayton, Ohio	
Gabriel Co.	9- 7-48
Cleveland, Ohio	1-16-49
	7- 1-53
Gale Products	4- 7-52
Galesburg, Illinois	
Garland Mfg. Co.	8-20-56
Detroit, Mich.	
General Dry Batteries, Inc.	11-23-48
Cleveland, Ohio	

	Name of Licensees	Dates of Licenses
	General Electric Co.	10-29-52
	Schenectady, N. Y.	11-25-52
		6-22-53
		11-17-53
		4-13-54
		7-27-54
		11-29-54
		12- 1-54
		4- 4-55
		7-26-55
		8- 2-55
		2- 9-56
		3-12-56
		2- 9-56
		2-15-56
		2-28-56
		5- 7-56
	General Water Heater Corp.	6-29-54
	Burbank, Calif.	
	Gerity-Michigan Corp.	3-28-52
	Adrian, Michigan	
	Geuder, Paeschke & Frey	4- 2-51
	Lebanon, Ind.	
	Gibson Refrigerator Co.	8- 2-49
	Greenville, Michigan	
	Gibson Mfg. Co.	9-25-56
	Atlanta, Ga.	
70	Glenvale Products Div.	10-29-51
	Malvern, Arkansas	
	Globe Lighting Prod. Inc.	2- 9-55
	Los Angeles, Calif.	
	Goerlich's, Inc.	2-25-48
	Toledo, Ohio	8-11-49
	Goodyear Aircraft Corp.	3-30-50
	Akron, Ohio	
	The Graber Co.	10-22-51
	Middleton, Wisc.	
	Grammes, L. F. & Sons, Inc.	6-15-48
	Allentown, Pa.	10-20-52

	Name of Licensees	Dates of Licenses
	Grand Rapids Brass Co. Grand Rapids, Mich.	1-13-50
	Grand Rapids Metalcraft Div., F. L. Jacobs Co. Grand Rapids, Mich.	4-16-56
	Grand Sheet Metal Products. Co. Chicago, Illinois	5-20-49 10-18-50 11- 6-52 11-12-54
	Graphire Corp. New York, N. Y.	1-29-51
	Griffin Wheel Co. Chicago, Ill.	1-13-56
	Grigoleit Company Decatur, Illinois	1-24-51
	C. M. Hall Lamp Co. Detroit, Michigan	3-12-52
	Hamill Mfg. Co. Washington, Mich.	9- 6-56
	Hamilton Beach Co. Div. of Scoville Mfg. Co. Racine, Wisconsin	7- 1-54
	Hamilton Mfg. Corp. Columbus, Indiana	11-11-48 4- 5-50 7-24-52 10- 5-54
71	Hamilton Metal Products Co. Hamilton, Ohio	4- 5-48
	Hampden Specialty Prods. Inc. Easthampton, Mass.	9-12-55 8-14-56
	Hardy Mfg. Corp. Union City, Indiana	2-21-56
	Harvey Machine Co., Inc. Torrance, Calif.	7-24-51 2-15-52
	Herman Hassinger, Inc. Philadelphia 40, Pa.	4- 3-50 1- 8-52
	Health-Mor, Inc. Cleveland, Ohio	5-13-52
	M. M. Hedges Mfg. Co., Inc. Chattanooga, Tennessee	11-16-54

	Name of Licensees	Dates of Licenses
	Heineke & Co.	8- 6-49
	Springfield, Illinois	
	Heintz Mfg. Co.	12-18-53
	Philadelphia, Pa.	6-11-54
		4- 5-55
	Wm. Heller Co., Inc.	2- 6-56
	Altoona, Pa.	
	Hemp & Co.	2- 6-51
	Macomb, Illinois	11- 2-51
		11- 1-55
	Henry Furnace Co.	9-25-53
	Medina, Ohio	
	Hercules Building Corporation	11- 1-50
	Chicago, Illinois	
	Hillgren Mfg. Co.	1-19-48
	Huntington Park, Calif.	7-13-54
	Hoffmann Industries, Inc.	11- 2-51
	Sinking Spring, Pa.	
72	The Hoover Company	3- 6-50
	Kingston-Conley Div.	4-11-56
	No. Plainfield, N. J.	
	Hotpoint, Inc.	1- 1-49
	Milwaukee, Wisconsin	4- 7-52
		2-17-53
		2- 8-55
		8-31-56
	Houdaille-Hershey Corp.	10-18-51
	Buffalo 11, New York	11- 1-54
	The Huffman Mfg. Co.	2- 7-55
	Dayton, Ohio	
	Hydraulic Tools Corp.	11-25-52
	Sheboygan, Wisconsin	
	Ideal Brass Works, Inc.	5-16-56
	St. Paul, Minn.	
	Illinois Fabricators	4-10-53
	Kankakee, Illinois	
	Illinois Watch Case Co.	1-16-50
	Elgin, Illinois	

	Name of Licensees	Dates of Licenses
	Imperial Lamp & Shade Co. Philadelphia, Pa.	6-10-49
	Independent Lock Co. Fitchburg, Massachusetts	4-26-51
	Industrial Lamp Corp. Elkhart, Indiana	10-29-51
	Industrial Wire Cloth Products Corp. Wayne, Michigan	6-27-56
	Inland Steel Co. East Chicago, Illinois	4-20-55
	International Business Machines Corp.	1- 5-48
	Endicott, New York	2-15-56
	International Hardware Mfg. Co. Detroit, Michigan	7-22-54
73	International Harvester Co. Chicago 1, Illinois	8-11-53
	Interstate Precision Prod. Corp. Anaheim, California	4- 7-54
	Ironrite Inc.	3-15-50
	Mt. Clemens, Michigan	12-11-52
	Jackes-Evans Mfg. Co. St. Louis, Missouri	9- 8-53
	Jamestown Metal Corp.	10-18-48
	Jamestown, New York	7-10-51
	Jaybee Manufacturing Co. Los, Angeles, California	4-16-56
	Johns-Manville Products Waukegan, Illinois	5-20-52
	Jones & Laughlin Steel Corp. Pittsburgh 30, Pa.	1- 5-56
	H. L. Judd Company Wallingford, Connecticut	2-26-48
	Kaywood Corp. Benton Harbor, Michigan	11-15-48
	Keeler Brass Co.	8-19-48
	Grand Rapids, Michigan	12-10-54
	O. S. Keene Machine Co., Inc. Middlebury, Indiana	4-26-55
	Kent-Moore Organization, Inc. Jackson, Michigan	9-23-52

Name of Licensees	Dates of Licenses
Keystone Electric Mfg. Co.	2-20-52
Philadelphia 34, Pa.	9-20-54
King-Seeley Corp.	4-16-54
Scio, Michigan	
Kirsch Co.	3-22-50
Sturgis, Michigan	6-23-52
	3-14-56
74 Knox-Warrenton Company	1-26-51
Thomson, Georgia	
Koppers Company	1-10-51
Baltimore, Md.	
Kuehne Mfg. Co.	2- 6-51
Mattoon, Illinois	12-23-53
	3- 8-55
Kwikset Locks, Inc.	10- 6-53
Anaheim, Calif.	
L C N Closers, Inc.	12- 3-53
Princeton, Illinois	
Landers, Frary & Clark	8- 7-48
New Britain, Conn.	11-17-51
Lawn-Boy	11- 6-52
Div. of Outboard, Marine & Mfg. Co.	
Lamar, Mo.	
Lee Metal Products Co.	10- 5-48
Baltimore, Md.	
Lennox Industries, Inc.	4-10-56
Columbus, Ohio	
The Lima Register Co.	6-29-54
Lima, Ohio	
Lincoln Eng. Co.	8- 3-53
St. Louis, Mo.	
Lithonia Finishing Corp.	9-14-56
Conyers, Ga.	
The Lobdell-Emery Mfg. Co.	4-19-54
Alma, Michigan	4-30-54
	8-29-55
Lockvent	5-26-53
Chester, Va.	
Lonergan Mfg. Co.	10-23-51
Albion, Michigan	

	Name of Licensees	Dates of Licenses
	Los Angeles Parkerizing Co. Los Angeles, Calif.	2-14-55
	Lyle Signs, Inc. Minneapolis, Minn.	5-16-56
75	E. J. McAleer & Co., Inc. Philadelphia, Pa.	1-27-48
	Geo. F. McMurray Co. Burbank, Calif.	7-17-51
	Manhattan Castings, Inc. Paterson, New Jersey	2-17-49
	Manitowoc Equip. Works Div. of Manitowoc Co., Inc. Manitowoc, Wisconsin	1-12-55
	Maremont Automotive Prod., Inc. Harvey, Ill.	8-18-49
	Markstone Mfg. Co. Chicago, Ill.	12-14-49
	Martin-Parry Corp. Toledo, Ohio	6-30-48 9- 1-48
	The Maytag Co. Newton, Iowa	3-18-55
	Meldrum Mfg. & Eng. Co. St. Paul, Minn.	2- 1-52
	Melrose Lighting Co. Philadelphia, Pa.	10-13-55
	Metal Bed Rail Co., Inc. Lexington, N. C.	2-13-56
	Metal Industries, Inc. Indianapolis, Indiana	10-12-51 3-10-52
	Metal Mouldings Corp. Detroit, Mich.	6- 8-51
	Metalcraft Corp. Chicago, Illinois	4-23-54
	Metalcraft Prod., Inc. Philadelphia, Pa.	9-10-56
	Mid-City Processing Corp. Chicago, Illinois	1-29-48
	The Mid-West Chandelier Co. North Kansas City, Mo.	6- 8-56

	Name of Licensees	Dates of Licenses
76	Midwest Mfg. Corp.	7-26-55
	Sub. of Admiral Corp.	
	Galesburg, Ill.	
	The Miller Co.	10-16-53
	Utica, Ohio	
	Miller Bros.	7- 6-51
	Los Angeles, Calif.	
	Mills Metal Compartment Co.	3- 2-53
	Upper Sandusky, Ohio	
	Mimar Products Inc.	2-25-49
	Brooklyn, New York	
	Miro-Flex Co., Inc.	1-30-52
	Wichita, Kansas	9- 9-52
		2- 2-53
	The Mitchell-Bentley Corp.	7- 2-56
	Ionia Mfg. Co. Div.	8-17-56
	Ionia, Mich.	
	Mitchell Mfg. Co.	5-10-54
	Ft. Smith, Ark.	
	Modern Tool & Die Co.	3- 8-51
	Cleveland, Ohio	
	Moe Light Inc. (Thomas Ind.)	6-16-50
	Ft. Atkinson, Wisconsin	
	Mohawk Brush Co.	12- 4-52
	Albany, New York	
	Monark Silver King, Inc.	8- 5-54
	Chicago, Illinois	11-30-54
	Monroe Auto Equip. Co.	1-25-51
	Monroe, Michigan	1-11-54
		6-12-56
	Monroe Calculating Mach. Co.	4-26-48
	Orange, N. J.	
77	Motor Products Corp.	10-27-48
	Detroit, Michigan	
	Marion Industries Div.	6-13-50
	of Motor Products Corp.	
	Marion, Ohio	
	Mouldings Div. of	5-14-56
	Thompson Industries	7-30-56
	Indianapolis, Ind.	

	Name of Licensees	Dates of Licenses
	Mueller Climatrol Div. of Worthington Corp. Milwaukee, Wis.	2- 6-56
	The Murray Corp. of America Detroit, Michigan	7-27-49
	Murray-Ohio Mfg. Co. Lawrenceburg, Tenn.	4- 1-54
	National Engineering & Mfg. Co. Kansas City, Missouri	7- 6-53 10-18-54
	National Steel Construction Co. Seattle, Washington	8-23-48
	L. R. Nelson Mfg. Co., Inc. Princeville, Ill.	7-21-55
	Nesco, Inc. Milwaukee, Wisconsin	5-14-51 5-18-55
	Newark Stove Co. Newark, Ohio	9- 5-56
	Norge Div. Borg-Warner Corp. Muskegon Heights, Mich.	7-11-49 12-28-55 4-24-56
	Norris-Thermador Corp. Los Angeles, Calif.	7- 6-54
	National Lock Co. Rockford, Ill.	9- 1-48 11- 8-50
78	North Vernon Industries, Inc. North Vernon, Ind	3-22-56 4-25-56
	Northern Illinois Gas Co. Bellwood, Illinois	6-22-56
	Novi Equipment Co. Novi, Michigan	3- 8-49 1-13-54
	Nuside Metal Prod. Div. Sharon Coal & Ice Co. Sharon, Pa.	5-23-55
	Ny-lint Tool & Mfg. Co. Rockford, Illinois	11-25-53 5-15-51
	The Ohio Can & Crown Co. Massillon, Ohio	1-31-52
	Ohio Electric Mfg. Co. Cleveland, Ohio	4-10-53

	Name of Licensees	Dates of Licenses
	Olin Mathieson Chemical Corp. Olin Industries, Inc. East Alton, Illinois	1-10-51
	C. A. Olsen Mfg. Co. Div. Westinghouse Electric Corp. Elyria, Ohio	4-20-53 2-28-56
	Pacific All-Fiber Drums, Inc. Alhambra, Calif.	7- 5-51
	Pacific Iron & Steel Corp. of Los Angeles Los Angeles, Calif.	3- 3-52
	Pacific Paint & Varnish Co. Berkeley, Calif.	6-13-55
	Pal Products, Inc.	10- 8-51
	Northern Ind. Steel Supply Co., Inc. Michigan City, Ind.	5-31-55
79	Palmer Mfg. Co. Phoenix, Arizona	10-14-53
	Paper Mate Mfg. Co. Culver City, Calif.	5-21-56
	Pemco Corp. Research Div. Baltimore, Md.	8-21-56
	Penberthy Injector Co. Detroit, Michigan	12- 3-48
	Penco Metal Prods. Div. Alan Wood Steel Co. Philadelphia, Pa.	9-12-55
	Peninsular Metal Prods. Corp. Detroit, Mich.	9- 6-49 7- 7-52
	Penn Metal Corp. of Pa. Philadelphia, Pa.	1-12-53
	Pennsylvania Range Boiler Co. Philadelphia, Pa.	4-30-56
	Peoria Consolidated Mfgrs. Inc. Peoria, Illinois	9-11-52
	Perfection Finishing Corp. Wauseon, Ohio	12-13-54

	Name of Licensees	Dates of Licenses
	Perfection Industries Div.	3-30-56
	Hupp Corp.	
	Cleveland, Ohio	
	Philco Corp. Dexter Div.	9-10-51
	Alliance, Ohio	
	Pioneer Gen-E-Motor Corp.	8-14-50
	Chicago, Illinois	
	Pittsburgh Corning Corp.	7-19-55
	Port Allegheny, Pa.	
80	Pittsburgh Equitable Meter Div.	4- 6-49
	Rockwell Mfg. Co.	
	Pittsburgh, Pa.	
	Pittsburgh Plate Glass Co.	7- 1-55
	Milwaukee, Wis.	
	Fayette R. Plumb, Inc.	1- 4-49
	Philadelphia, Pa.	
	Pollak Eng. & Mfg. Corp.	1-30-48
	Arlington, New Jersey	
	Pollock Paper Corp.	5-31-49
	Middletown, Ohio	
	Poloron Products, Inc.	7- 1-53
	New Rochelle, N. Y.	9-22-55
	Poray, Inc.	8-20-53
	Chicago, Illinois	10-26-53
	Porcelain Enamel Products Corp.	10-17-52
	West Concord, Mass.	
	Precision Castings Co.	6- 4-52
	Kalamazoo, Michigan	
	Pressed Steel Tank Co.	12-30-48
	Milwaukee, Wisconsin	12-20-48
	Proctor Electric Co.	1- 4-49
	Philadelphia, Pa.	6-19-51
		8-15-51
	Production Enterprises, Inc.	1-28-49
	Brooklyn, N. Y.	
81	Progress Mfg. Co., Inc.	9-17-53
	Philadelphia, Pa.	1-18-56
	Providence Metalizing Co.	12-11-51
	Providence, Rhode Island	

	Name of Licensees	Dates of Licenses
	Public Service Electric & Gas Co.	8-24-51
	Newark, N. J.	
	Radio Steel & Mfg. Co.	10-26-55
	Chicago, Ill.	6- 8-56
	The Randall Co.	5-10-50
	Cincinnati, Ohio	
	Reading Hardware Corp.	1-10-50
	Reading, Pa.	
	Red Lion Cabinet Co.	1-31-55
	Red Lion, Pa.	
	The Regina Corp.	5-10-56
	Rahway, N. J.	
	Remington Arms Co., Inc.	4- 7-51
	Bridgeport, Conn.	10- 5-51
		9-17-52
	Reo Motors, Inc.	7- 8-52
	Lansing, Michigan	
	Paul R. Repath Co.	4- 3-52
	Los Angeles, Calif.	
	Republic Steel Corp.	4-20-55
	Canton, Ohio	
	Reynolds Metals Co.	5-18-48
	Louisville, Ky.	8-31-48
		12-30-52
	Quiet-Heet Manufacturing Co.	11-20-52
	Newark, N. J.	
82	Rheem Mfg. Co.	3-15-51
	South Gate, Calif.	4- 7-55
		8-30-55
		5- 7-51
		8-25-51
		7- 6-51
		6-21-51
	Roberts Mfg. Co.	6-21-51
	Cleburne, Texas	
	Rockwell Mfg. Co.	10-21-46
	Dubois, Pa.	
	Rockwell Mfg. Co.	5- 3-50
	Regulator Div.	3-22-51
	Norwalk, Ohio	

	Name of Licensees	Dates of Licenses
	Ronson Art Metal Works, Inc.	4-21-49
	Newark, N. J.	
	Royal Vacuum Cleaner Co.	11-17-48
	Cleveland, Ohio	
	F. C. Russell Co.	12-28-55
	Columbiana, Ohio	
	Ruud Mfg. Co.	12-30-48
	Kalamazoo, Mich.	
	Safety First Products Corp.	10- 5-51
	Elmsford, New York	
	St. John & Co.	7-25-52
	Chicago, Ill.	
	Sanymetal Prod. Co.	3-12-52
	Cleveland, Ohio	
	Savage Arms Corp.	3-12-48
	Chicopee Falls, Mass.	
	Sawhill Tubular Prod.	6-25-53
	Sharon, Pa.	
83	Schlage Lock Co.	1- 9-48
	San Francisco, Calif.	
	Scott Paper Company	3- 1-54
	Chester, Pa.	
	Scovill Mfg. Co.	5- 8-56
	Waterbury, Conn.	
	Screw Machine Prods. Co.	8-14-51
	Portland, Oregon	4- 7-54
	Security Plating Corp.	6-22-53
	Los Angeles, Calif.	
	L. J. Segil Co.	4-16-54
	Chicago, Ill.	
	Servel, Inc.	9- 2-48
	Evansville, Ind.	
	Seymour Tool & Engr. Co.	8- 8-49
	Seymour, Ind.	6- 6-50
		11-17-50
	Sheller Mfg. Co.	9-18-50
	Portland, Ind.	11-12-53
		4-22-54

	Name of Licensees	Dates of Licenses
	Shwayder Bros. Inc.	7-20-50
	Detroit, Mich.	6-27-52
		5- 6-54
		5-11-54
		5- 3-55
	Simonsen Metal Products Co.	1-23-50
	Chicago, Illinois	
	A. L. Smith Iron Co.	5- 4-49
	Chelsea, Mass.	6-27-55
84	Smith-Corona, Inc.	4- 9-56
	Groton, N. Y.	
	H. P. Snyder Co.	10-26-51
	Little Falls, N. Y.	
	Soreng Sampsel Time Control Inc.	6-12-50
	Spring Valley, Ill.	
	Southern Calif. Pipe & Steel Co.	2- 5-53
	Los Angeles, Calif.	
	Southern Calif. Gas. Co.	8-15-55
	Los Angeles, Calif.	
	Southern Pine Lumber Co.	10-31-55
	Diboll, Texas	
	Southern States Iron Roofing Co.	4- 8-52
	Savannah, Georgia	
	Speed Queen Corp.	11-23-49
	Ripon, Wisconsin	4-24-51
		4-27-56
	Spero Electric Corp.	4-22-49
	Cleveland, Ohio	
	Stamping Prods. & Mfg. Co.	4-19-48
	Detroit, Michigan	
	Standard Tank & Seat Co.	6- 9-55
	Camden, New Jersey	
	Standard Thompson Corp.	10-13-52
	Vandalia, Ohio	
	Stanley Home Products Inc.	2-18-48
	Westfield, Mass.	
	Stanley-Judd Div.	6- 7-51
	Stanley Works	
	Wallingford, Conn.	

	Name of Licensees	Dates of Licenses
85	Stant Mfg. Co.	3-28-51
	Connersville, Ind.	12- 3-51
	Steber Mfg. Co.	10- 5-53
	Broadview, Ill.	
	Steelcase, Inc.	4-19-48
	Grand Rapids, Mich.	
	Steger Prods. Mfg. Co.	11-16-48
	Steger, Ill.	
	Stor-All Corporation	8- 4-51
	Inglewood, Calif.	
	Stratton & Terstegge Co.	6-26-53
	Louisville, Ky.	
	Structo Mfg. Co.	11-12-54
	Freeport, Ill.	12-16-54
	Studebaker Corp.	9-16-48
	South Bend, Ind.	5-22-52
		7-15-52
		9-12-52
		10- 7-52
		12-21-54
	Sun Eng. & Mfg. Co., Inc.	8- 9-55
	St. Petersburg, Fla.	
	Sunbeam Corp.	7- 8-53
	Chicago, Ill.	6-29-54
		3-27-56
	Sunbeam Lighting Co.	5-23-55
	Los Angeles, Calif.	
	Swanson, Inc.	5-15-52
	Monroe, Ga.	
86	Sylvania Electric Prods. Inc.	C- 9-55
	Ann Arbor, Mich.	
	(formerly Argus Cameras, Inc.)	
	Taylor-Wharton Iron & Steel Co.	4-28-52
	Cincinnati, Ohio	
	Ternes Steel Co.	9-15-55
	Detroit, Mich.	
	Textile Machine Works	5- 9-49
	Reading, Pa.	

	Name of Licensees	Dates of Licenses
	Thomas Industries, Inc.	12-20-51
	Princeton, Ky.	7- 8-53
		2- 8-55
	Thompson Prods. Inc.	10-11-48
	Cleveland, Ohio	5- 9-49
		6-16-53
	Thor Corporation	12-29-52
	Chicago, Ill.	
	Timken Roller Bearing Co.	11-24-52
	Canton, Ohio	
	Tonka Toys, Inc.	5- 6-55
	Mound, Minn.	
	Troy Sunshade Co.	5- 1-52
	Troy, Ohio	
	Turnbull Mfg. & Dist. Co.	3- 8-48
	Detroit, Mich.	
	Turner Brass Works	10-19-48
	Sycamore, Ill.	
	Tusco Mfg. Co.	3- 2-48
	Gnadenhutten, Ohio	12- 2-53
87	Twin Cities Arsenal Federal	8-22-50
	Cartridge Corp.	3-21-51
	Minneapolis, Minn.	10-29-51
		2-26-52
	Underwood Corp.	2-21-56
	Hartford, Conn.	
	Union Hardware Co.	9- 7-49
	Torrington, Conn.	
	Union Metal Mfg. Co.	12- 6-48
	Canton, Ohio	
	Union Parts Mfg. Co., Inc.	4-26-55
	New Brunswick, N. J.	
	Union Steel Chest Corp.	7-13-49
	LeRoy, N. Y.	
	United Specialties of Birmingham, Inc.	2-11-53
	Birmingham, Ala.	
	United Specialties Co.	6-14-54
	Chicago, Ill.	11- 1-54

	Name of Licensees	Dates of Licenses
	U. S. Defense Corp.	2-26-52
	St. Louis Ordnance Plant	1-12-53
	St. Louis, Mo.	9-16-53
	United States Rubber Co.	1-23-48
	Mishawaka, Ind.	5- 5-50
	United Steel Barrel Co.	8-10-49
	Philadelphia, Pa.	
	United Stove Co.	9-21-49
	Detroit, Mich.	
88	VanBrode Milling Co., Inc.	3-10-55
	Clinton, Mass.	
	Vernco Corp.	6-12-56
	Columbus, Ind.	
	Vickers, Inc.	9-10-56
	Joplin, Mo.	
	Virco Mfg. Corp.	12-20-50
	Los Angeles, Calif.	
	Vulcan Containers, Inc.	9-19-51
	Bellwood, Ill.	
	E. R. Wagner Mfg. Co.	1- 2-49
	Milwaukee, Wisc.	5-23-55
	The Walker Mfg. Co.	1-24-49
	Racine, Wis.	5-11-49
	Walker-Michigan Div.	10-18-54
	Walker Mfg. Co. of Wisc.	
	Jackson, Michigan	
	Wallkill Mach. Works, Inc.	6-18-48
	Walden, N. Y.	
	Waterman-Waterbury Co.	4-27-56
	Minneapolis, Minn.	
	Waverly Prods., Inc.	6-15-55
	Kansas City, Mo.	
	The Wayne Pump Co.	10-17-55
	Salisbury, Md.	
	The Weatherhead Co.	6- 3-48
	Cleveland, Ohio	5- 1-49
	Webcor, Inc.	6-29-54
	Chicago, Ill.	

	Name of Licensees	Dates of Licenses
	Webster-Chicago Corp. Chicago, Ill.	12-12-50
89	Western Tool & Stamping Co. Des Moines, Iowa	3- 1-50 5-11-56
	Westinghouse Electric Corp. Metuchen, N. J.	6-27-55 5- 7-56 7-2-56
	Wheeling Steel Corp. Wheeling, W. Va.	7-26-48 4-21-50 8-23-55
	Whirlpool-Seeger Corp. St. Paul, Minn.	6- 1-49 11- 8-51 5- 8-52 6-17-52 12- 4-52 4-30-54 6- 3-55 6-16-55 2-15-56 3-16-56
	Wilshire Mfg. Co. Los Angeles, Calif.	5- 4-53
	Walter C. Williams Co. Wilkes-Barre, Pa.	3- 6-52
	Winchester Repeating Arms Co. New Haven, Conn.	1-12-51
	Window Controls, Inc. Millville, N. J.	6-19-53
	The Wood Shovel & Tool Co. Piqua, Ohio	11-27-53
	The Woodlin Metal Prod. Co. Marshall, Michigan	10-14-53
90	Albert Wright, Defense Div. Accurate Screw Machine Products Emeryville, Calif.	9-12-51
	Yale & Towne Mfg. Co. Stamford Div. Stamford, Conn.	9-15-50
	Yoder Mfg. Co. Los Angeles, Calif.	5-11-48

Name of Licensees	Dates of Licenses
L. A. Young Spring & Wire Corp.	8- 9-51
Detroit, Mich.	11- 6-51
	6- 1-49
	9-13-50
	3-27-52
	2- 7-55
The Youngstown Steel Door Co.	1-20-48
Youngstown, Ohio	
Youngstown Sheet & Tube Co.	8-13-48
Youngstown, Ohio	3- 7-50
	3-29-50

Exhibit "C".

Licensees

91

Ainsworth Mfg. Corp.
Detroit, Michigan
All-Lite Mfg. Co.
Chicago, Illinois
American Radiator & Standard Sanitary Corp.
Buffalo, New York
Auto Specialties Mfg. Co.
St. Joseph, Michigan
Bastian-Blessing Co.
Chicago, Illinois
Blake Mfg. Co.
Clinton, Mass.
California Parkerizing Co.
Oakland, California
Columbia Mills, Inc.
Saginaw, Michigan
Corona Corp.
Jersey City, New Jersey
Day & Night Div.
Carrier Corp.
Monrovia, California
R. E. Dietz Mfg. Co.
Syracuse, New York

Eastern Venetian Blind Co.
Baltimore, Maryland
Embury Mfg. Co.
Warsaw, New York
Gabriel Co.
Cleveland, Ohio
International Business Machines Corp.
Endicott, New York
Jamestown Metal Corp.
Jamestown, New York
Kaywood Corp.
Benton Harbor, Michigan
92 Keeler Brass Co.
Grand Rapids, Michigan
Kirsch Co.
Sturgis, Michigan
Landers, Frary & Clark
New Britain, Conn.
Lennox Industries, Inc.
Columbus, Ohio
Litecontrol Corp.
Watertown, Mass.
Martin-Parry Corp.
York, Pa.
Mimar Products, Inc.
Brooklyn, New York
Na-Ber Mfg. Co.
Dallas, Texas
National Lock Co.
Rockford, Illinois
National Tube Co.
McKeesport, Pa.
Ohio Can & Crown Co.
Canton, Ohio
Reading Hardware Corp.
Reading, Pa.
Sheller Mfg. Corp.
Portland, Indiana
A. L. Smith Iron Co.
Chelsea, Mass.
Sure-Heat Stove Co.

Dallas, Texas
Thompson Products
Cleveland, Ohio
Torrington Mfg. Co.
Torrington, Conn.
93 Union Steel Chest Corp.
LeRoy, New York
V-M Corporation
Benton Harbor, Michigan
Venetian Mfg. Co.
Baltimore, Md.
E. R. Wagner Mfg. Co.
Milwaukee, Wisconsin
Walker Mfg. Co.
Racine, Wisconsin
Weatherhead Co.
Cleveland, Ohio
Wheeling Steel Corporation
Wheeling, West Virginia
L. A. Young Spring & Wire
Detroit Moulding Div.
Detroit, Michigan

141 Exhibit D-23.

Adopted April 1951.

Serial No. .....

Ransburg Electro Spray Agreement.

This agreement, entered into this ..... day of ..... , 19..... , by and between Ransburg Electro-Coating Corp., an Indiana corporation, having its principal place of business at Indianapolis, Indiana, hereinafter called "Ransburg," and ..... , hereinafter called "User," Witnesseth That:

Whereas, Ransburg is the owner of, or otherwise has the right to grant licenses under, certain inventions, letters

patent of the United States, or patent applications pertaining to and covering methods and apparatus used in coating articles with electrostatically atomized and electrostatically deposited liquid coating material, the process so used being hereinafter referred to as "said Process," has acquired much engineering data and experience pertaining to said Process, has designed special equipment therefor, and is conducting research in that field; and

Whereas, User desires to use said Process and in so doing to avail itself of the experience gained by Ransburg in this field and requests that Ransburg furnish certain special equipment herein below described.

Now, therefore, it is mutually agreed as follows:

1. License: In consideration of the payment by Us of the fees herein provided, Ransburg hereby grants to User, subject to and in accordance with all of the terms and conditions of this agreement and while the same is in effect, the right to use said Process at User's plant in ..... with one unit as shown in Ransburg's drawing No. ..... subject to such changes therein and such further specifications as Ransburg may prescribe, for electrostatically spraying .....

.....

2. Equipment: Ransburg will furnish User for its use of said Process high voltage, atomizing, and liquid supply apparatus and electrical controls therefor and such other equipment as Ransburg deems desirable, which will be shipped prepaid to User's aforesaid plant upon request of User but subject to the availability to Ransburg of the necessary component parts of the equipment and prior shipment commitments of Ransburg. Ransburg will supply replacements, without charge, of any defective parts of its equipment except where the defect results from improper use or operation or negligence of User, and provided User returns such defective parts to Ransburg within

thirty days after they become defective. User shall furnish all labor, materials, and equipment necessary for the use of said Process except the equipment to be furnished by Ransburg in accordance with this paragraph.

3. Supervision: Ransburg will furnish supervision necessary to placing its equipment in readiness for operation. Should Ransburg's supervisor make more than one trip to the plant of User or be delayed there for any cause not chargeable to Ransburg, then for each day of such trip or trips or of such delay, User shall pay Ransburg the sum of Seventy-five dollars and any necessary transportation expenses incurred thereby.

4. Conversion: Ransburg will grant, upon written request by User, the right to use said Process otherwise than as described in Paragraph 1 unless in Ransburg's opinion the requested use involves unsafe practices or impractical conditions or is in conflict with the policies or commitments of Ransburg. Such conversion shall be made only after Ransburg has agreed thereto in writing.

5. Liability: User agrees that Ransburg shall not be liable to User for any claim resulting from the use, operation, or condition of the equipment furnished by Ransburg. User further agrees to reimburse Ransburg for any loss which may be sustained as a result of any liability to third parties for any claim resulting from the use, operation, or condition of the equipment furnished by Ransburg while said equipment is in the possession or custody of User.

6. Use of Equipment: User agrees to follow Ransburg's safety and operating recommendations and to maintain Ransburg's equipment in as good repair as when installed, ordinary wear and tear from proper use and operation alone excepted. User agrees that it shall not use or operate Ransburg's equipment with any of the parts or safety devices removed and to reimburse Ransburg for

loss of or damage to Ransburg's equipment while in User's possession or custody.

7. Title: Title to all equipment furnished by Ransburg shall at all times remain in Ransburg, and said equipment shall remain personal property regardless of how it is affixed to the realty. Ransburg shall have at all times, during business hours, the right to enter User's premises for the purpose of determining whether its equipment and said Process are being used as herein provided. User shall not have the right, without the written consent of Ransburg, to (1) lease or grant the right to use the equipment furnished by Ransburg to any person, firm, or corporation, (2) remove it from the plant to which it is delivered for installation, or (3) use it for any purpose or in any manner other than as herein provided. Upon termination of this agreement, User agrees to deliver the equipment furnished by Ransburg, freight prepaid, to Ransburg at Indianapolis, Indiana in as good condition as when installed, ordinary wear and tear incident to its proper use and operation alone excepted.

8. Performance: The performance of the obligations of both parties hereunder is subject to strikes and lockouts, whether in the organization of either party or elsewhere, and to accidents, fires, delays in manufacture or transportation, acts of God, embargoes or any governmental action as well as any causes for postponement or non-performance over which the parties have no control; and any failure, due to any of such causes, of either party to perform any of its obligations herein set forth shall not be considered a violation of this agreement.

142 9. Termination: User shall have the right to terminate this agreement at any time upon thirty days' written notice to Ransburg provided User has fulfilled its obligations hereunder and returns Ransburg's equipment prepaid to Ransburg within thirty days after such notifica-

tion in as good condition as when installed, ordinary wear and tear from proper use and operation alone excepted. Ransburg shall have the right to terminate this agreement at any time after three years from the date hereof upon six months' written notice to User.

In the event User shall fail to perform any of the conditions or obligations of this agreement, and such failure shall continue or recur after written notice thereof from Ransburg, Ransburg may (without prejudice to its rights to recover any amounts owing by User as herein provided or any damages for breach of this agreement) terminate this agreement and take possession of its equipment, and for that purpose permission is hereby given Ransburg or any of its agents to enter any premises wherein its equipment is located, to discover and take possession of its equipment without notice and without being liable to any suit, action, indictment, or other proceedings by User or anyone claiming under it. Any delay, concession, or indulgence on the part of Ransburg in enforcing any of its rights on any default shall not be deemed a waiver of such rights.

10. Fees: User agrees to pay to Ransburg an initial fee of ..... within sixty days after date of shipment of Ransburg's equipment or thirty days after date of installation thereof, whichever occurs earlier. In the event User has not requested shipment of Ransburg's equipment within six months of the date of this agreement, one-half of the initial fee shall become due and payable forthwith and the balance of it shall be due and payable as provided hereinabove. User further agrees to pay Ransburg on or before the tenth day of each calendar month during the life of this agreement, a monthly fee

Monthly fees under this agreement shall start with the date of installation of Ransburg's equipment or thirty days after the date of shipment thereof from Ransburg's plant, whichever occurs earlier, and the first payment shall be made on or before the tenth day of the calendar month following. For the first and last payments of monthly fees under this agreement, the basic minimum monthly fee of One Hundred Dollars ($100.00) shall be prorated according to the portion of the month for which it is payable.

In addition to the above fees, User agrees to pay; or to reimburse Ransburg if it should be obliged to pay, directly or indirectly any taxes, licenses, or fees imposed by the laws of any State, of any political subdivision, of any municipality, or of any other governmental authority by reason of the installation, possession, use, or location of any equipment furnished by Ransburg pursuant to this agreement. Such sums as may be due under this provision shall be paid separately or added to the invoice for other payments as the law may require or as Ransburg may determine.

If User does not request shipment of Ransburg's equipment prior to the expiration of six months after the date of this agreement, Ransburg shall have the right prior to shipment of its equipment to change the fees and conditions of this agreement to conform to its policy as of the date of such shipment.

During the term of this agreement, the basic minimum monthly fee of One Hundred Dollars ($100.00) set forth above and the sum set forth in Paragraph 3 shall from time to time be adjusted commensurately with changes, from the value for November 15, 1950, in the Consumer's Price Index for Moderate-Income Families in Large Cities, as determined by the Bureau of Labor Statistics of the U. S. Department of Labor, on the 1935-39 base; provided, however, that only a change of at least ten percentage

points in the value of said Index shall require any such adjustment.

Upon request of Ransburg, User shall supply Ransburg with a written report showing the monthly quantity of coating material used in said unit and the cost to User of said coating material. User agrees to keep permanent books of account from which the correctness of said written reports can be verified and agrees that such books of account shall be open to inspection by Ransburg or its duly authorized representatives at any time during User's regular business hours.

11. Future Inventions: User agrees that in the event User acquires, from any source, any inventions, improvements or letters patent, domestic or foreign, relating to methods and/or apparatus involving the electrostatic atomization of liquids, Ransburg shall have with respect to coating apparatus and methods employing said inventions, improvements, and the subject matter of said letters patent, a royalty-free, non-exclusive, assignable license, with right to sub-license, such license to be irrevocable except upon voluntary surrender by Ransburg. Patents subject to Ransburg's rights under this paragraph shall include only patents acquired by User during the term of this agreement, patents acquired by User within two years following termination of this agreement, and patents whenever acquired by User which cover inventions and improvements made within the term of this agreement or within two years following its termination.

12. Execution of Agreement: This agreement sets forth the entire agreement and understanding between the parties as to the subject matter of this agreement, and no statements, conditions, or representations, either oral or written, made by the parties, their employees, or agents, including conditions or provisions appearing in any purchase order or other instrument issued by User, shall be

vaid or binding unless contained in a written instrument signed by both parties.

All the rights and privileges of Ransburg hereunder shall be extended to and inure to the benefit of the successors in business or assigns of Ransburg upon User being given written notice of the assignment of this agreement to such successors in business or assigns and upon the written acceptance by such successors in business or assigns of all Ransburg's obligations hereunder.

This agreement is submitted in quadruplicate for execution by User. It shall become a contract upon its acceptance by Ransburg at Ransburg's home office in Indianapolis, Indiana, and effective under the laws of the State of Indiana as of the date first above written.

In Witness Whereof, the parties have caused this agreement to be executed as of the day, month, and year first above written.

.....(User)

By.....

(Title)

Accepted at the Home Office in Indianapolis, Indiana,

Ransburg Electro-Coating Corp. (Ransburg),

By.....

(Title).

Form No. 428.

145 Exhibit D-25.

Adopted Oct. 1951.

Serial No.....

Ransburg Electro-Spray Agreement.

This agreement, entered into this .....day of ....., 19....., by and between Ransburg Electro-Coating Corp., an Indiana corporation, having its principal place of business at Indianapolis, Indiana, hereinafter called "Ransburg," and .....

....., hereinafter called "User,"

Witnesseth That:

Whereas, Ransburg is the owner of, or otherwise has the right to grant licenses under, certain inventions, letters patent of the United States, or patent applications pertaining to and covering methods and apparatus used in coating articles with electrostatically atomized and electrostatically deposited liquid coating material, the process so used being hereinafter referred to as "said Process," has acquired much engineering data and experience pertaining to said Process, has designed special equipment therefor, and is conducting research in that field; and

Whereas, User desires to use said Process and in so doing to avail itself of the experience gained by Ransburg in this field and requests that Ransburg furnish certain special equipment herein below described.

Now, therefore, it is mutually agreed as follows:

1. License: In consideration of the payment by User of the fees herein provided, Ransburg hereby grants to User, subject to and in accordance with all of the terms and conditions of this agreement and while the same is in effect, the right to use said Process at User's plant in.....

....., with one unit as shown in Ransburg's drawing No. ....., subject to such changes therein and such further specifications as Ransburg may prescribe for electrostatically spraying .....

.....

2. Equipment: Ransburg will furnish User, for its use of said Process, high voltage, atomizing, and liquid supply apparatus and electrical controls therefor and such other equipment as Ransburg deems desirable, which will be shipped prepaid to User's aforesaid plant upon request of User. Ransburg will furnish replacements, without charge, of any defective parts of its equipment, except where the defect results from improper use or operation or negligence of User, and provided User returns such defective parts to Ransburg within thirty days after they become defective. The furnishing of equipment and replacements by Ransburg is subject to the availability to Ransburg of the necessary component parts of the equipment and replacements and to prior shipment commitments of Ransburg. User shall furnish all labor, materials, and equipment necessary for the use of said Process except the equipment to be furnished by Ransburg in accordance with this paragraph.

3. Supervision: Ransburg will furnish supervision necessary to placing its equipment in readiness for operation. Should Ransburg's supervisor make more than one trip to the plant of User or be delayed there for any cause not chargeable to Ransburg, then for each day of such trip or trips or of such delay, User shall pay Ransburg the sum of Seventy-five dollars and any necessary transportation expenses incurred thereby.

4. Conversion: Ransburg will grant, upon written request by User, the right to use said Process otherwise than as described in Paragraph 1 unless in Ransburg's opinion the requested use involves unsafe practices or impractical conditions or is in conflict with the policies or commitments

of Ransburg. Such conversion shall be made only after Ransburg has agreed thereto in writing.

5. Liability: User agrees that Ransburg shall not be liable to User for any claim resulting from the use, operation, or condition of the equipment furnished by Ransburg. User further agrees to reimburse Ransburg for any loss which may be sustained as a result of any liability to third parties for any claim resulting from the use, operation, or condition of the equipment furnished by Ransburg while said equipment is in the possession or custody of User.

6. Use of Equipment: User agrees to follow Ransburg's safety and operating recommendations and to maintain Ransburg's equipment in as good condition as when installed, ordinary wear and tear from proper use and operation alone excepted. User agrees that it shall not use or operate Ransburg's equipment with any of the parts or safety devices removed and to reimburse Ransburg for loss of or damage to Ransburg's equipment while in User's possession or custody.

7. Title: Title to all equipment furnished by Ransburg shall at all times remain in Ransburg, and said equipment shall remain personal property regardless of how it is affixed to the realty. Ransburg shall have at all times, during business hours, the right to enter User's premises for the purpose of determining whether its equipment and said Process are being used as herein provided. User shall not have the right, without the written consent of Ransburg, to (1) lease or grant the right to use the equipment furnished by Ransburg to any person, firm, or corporation, (2) remove it from the plant to which it is delivered for installation, or (3) use it for any purpose or in any manner other than as herein provided. Upon termination of this agreement, User agrees to deliver the equipment furnished by Ransburg, freight prepaid, to Ransburg at Indianapolis, Indiana, in as good condition as when installed, ordinary

wear and tear incident to its proper use and operation alone excepted.

8. Performance: The performance of the obligations of both parties hereunder is subject to strikes and lockouts, whether in the organization of either party or elsewhere, and to accidents, fires, delays in manufacture or transportation, acts of God, embargoes or any governmental action, as well as any causes for postponement or non-performance over which the parties have no control; and any failure, due to any of such causes, of either party to perform any of its obligations herein set forth shall not be considered a violation of this agreement.

146 9. Termination: User shall have the right to terminate this agreement at any time upon thirty days' written notice to Ransburg, provided User has fulfilled its obligation hereunder and returns Ransburg's equipment prepaid to Ransburg within thirty days after such notification in as good condition as when installed, ordinary wear and tear from proper use and operation alone excepted. Ransburg shall have the right to terminate this agreement at any time after three years from the date hereof upon six months' written notice to User.

In the event User shall fail to perform any of the conditions or obligations of this agreement, and such failure shall continue or recur after written notice thereof from Ransburg, Ransburg may (without prejudice to its rights to recover any amounts owing by User as herein provided or any damages for breach of this agreement) terminate this agreement and take possession of its equipment, and for that purpose permission is hereby given Ransburg or any of its agents to enter any premises wherein its equipment is located, to discover and take possession of its equipment without notice and without being liable to any suit, action, indictment, or other proceedings by User or anyone claiming under it. Any delay, concession, or indul-

gence on the part of Ransburg in enforcing any of its rights on any default shall not be deemed a waiver of such rights.

10. Fees: User agrees to pay to Ransburg an initial fee of .....
....., within sixty days after date of shipment of Ransburg's equipment or thirty days after date of installation thereof, whichever occurs earlier. In the event User has not requested shipment of Ransburg's equipment prior to the termination of this agreement or within six months of the date of this agreement, whichever is earlier, one-half of the initial fee shall become due and payable forthwith and the balance of it shall be due and payable as provided hereinabove. User further agrees to pay Ransburg, on or before the tenth day of each calendar month during the life of this agreement, a monthly fee

Monthly fees under this agreement shall start with the date of installation of Ransburg's equipment or thirty days after the date of shipment thereof from Ransburg's plant, whichever occurs earlier, and the first payment shall be made on or before the tenth day of the calendar month following. For the first and last payments of monthly fees under this agreement, the basic minimum monthly fee of One Hundred Dollars ($100.00) shall be prorated according to the portion of the month for which it is payable.

In addition to the above fees, User agrees to pay, or to reimburse Ransburg if it should be obliged to pay, directly or indirectly any taxes, licenses, or fees imposed by the laws of any State, of any political subdivision, of any municipality, or of any other governmental authority by reason of the installation, possession, use, or location of any equipment furnished by Ransburg pursuant to this agreement. Such sums as may be due under this provision shall be paid separately or added to the invoice for other

payments as the law may require or as Ransburg may determine.

If User does not request shipment of Ransburg's equipment prior to the expiration of six months after the date of this agreement, Ransburg shall have the right prior to shipment of its equipment to change the fees and conditions of this agreement to conform to its policy as of the date of such shipment.

During the term of this agreement, the basic minimum monthly fee of One Hundred Dollars ($100.00) set forth above and the sum set forth in Paragraph 3 shall from time to time be adjusted commensurately with changes, from the value for November 15, 1950, in the Consumer's Price Index for Moderate-Income Families in Large Cities, as determined by the Bureau of Labor Statistics of the U. S. Department of Labor, on the 1935-39 base; provided, however, that only a change of at least ten percentage points in the value of said Index shall require any such adjustment.

Upon request of Ransburg, User shall supply Ransburg with a written report showing the monthly quantity of coating material used in said unit and the cost to User of said coating material. User agrees to keep permanent books of account from which the correctness of said written reports can be verified and agrees that such books of account shall be open to inspection by Ransburg or its duly authorized representatives at any time during User's regular business hours.

11. Future Inventions: User agrees that in the event User acquires, from any source, any inventions, improvements, or letters patent, domestic or foreign, comprehending subject matter usable in any way in connection with methods or apparatus for the electrostatic atomization of liquids or for coating with electrostatically atomized

liquids, Ransburg shall have with respect to coating methods and apparatus employing said invention, improvements, and the subject matter of said letters patent, a royalty-free, non-exclusive, assignable license, with right to sub-license, such license to be irrevocable except upon voluntary surrender by Ransburg. Patents subject to Ransburg's rights under this paragraph shall include only patents acquired by User during the term of this agreement, patents acquired by User within two years following termination of this agreement, and patents whenever acquired by User which cover inventions and improvements made within the term of this agreement or within two years following its termination.

12. Execution of Agreement: This agreement sets forth the entire agreement and understanding between the parties as to the subejct matter of this agreement, and no statements, conditions, or representations, either oral or written, made by the parties, their employees, or agents, including conditions or provisions appearing in any purchase order or other instrument issued by User, shall be valid or binding unless contained in a written instrument signed by both parties.

All the rights and privileges of Ransburg hereunder shall be extended to and inure to the benefit of the successors in business or assigns of Ransburg upon User being given written notice of the assignment of this agreement to such successors in business or assigns and upon the written acceptance by such successors in business or assigns of all Ransburg's obligations hereunder.

This agreement is submitted in quadruplicate for execution by User. It shall become a contract upon its acceptance by Ransburg at Ransburg's home office in Indianapolis, Indiana, and effective under the laws of the State of Indiana as of the date first above written.

In Witness Whereof, the parties have caused this agreement to be executed as of the day, month, and year first above written.

..... (User)

By .....

(Title)

Accepted at the Home Office in Indianapolis, Indiana, Ransburg Electro-Coating Corp. (Ransburg)

By .....

(Title)

Form No. 430.

147. Exhibit D-26.

Adopted Feb. 1952.

Serial No.....

Ransburg Electro-Spray Agreement.

This agreement, entered into by and between Ransburg Electro-Coating Corp., an Indiana corporation, having its principal place of business at Indianapolis, Indiana, hereinafter called "Ransburg," and .....

....., hereinafter called "User,"

Witnesseth That:

Whereas, Ransburg is the owner of, or otherwise has the right to grant licenses under, certain inventions, letters patent of the United States, or patent applications pertaining to and covering methods and apparatus used in electrostatically depositing liquid spray particles formed by airless atomization (without the use of compressed air), the process so used being hereinafter referred to as "said Process," has acquired much engineering data and experi-

ence pertaining to said Process, has designed special equipment therefor, and is conducting research in that field; and

Whereas, User desires to use said Process and requests that Ransburg furnish certain special equipment hereinbelow described.

Now, therefore, it is mutually agreed as follows:

1. License: In consideration of the payment by User of the fees herein provided, Ransburg hereby grants to User, subject to and in accordance with all of the terms and conditions of this agreement and while the same is in effect, the right to use said Process at User's plant in

.....

with one unit as shown in Ransburg's drawing No....., subject to such changes therein and such further specifications as Ransburg may prescribe, for electrostatically coating.....

.....

2. Equipment: Ransburg will furnish, User, for its use of said Process, high voltage, atomizing, and liquid supply apparatus and electrical controls therefor and such other equipment as Ransburg deems desirable, which will be shipped prepaid to User's aforesaid plant upon request of User. Ransburg will furnish replacements, without charge, of any defective parts of its equipment, except where the defect results from improper use or operation or negligence of User, and provided User returns such defective parts to Ransburg within thirty days after they become defective. The furnishing of equipment and replacements by Ransburg is subject to the availability to Ransburg of the necessary component parts of the equipment and replacements and to prior shipment commitments of Ransburg. User shall furnish all labor, material, and equipment necessary for the use of said Process except the equipment to be furnished by Ransburg in accordance with this paragraph.

3. Supervision: Ransburg will furnish supervision necessary for placing its equipment in readines for operation. Should Ransburg's supervisor make more than one trip to the plant of User or be delayed there for any cause not chargeable to Ransburg, then for each day of such trip or trips or of such delay, User shall pay Ransburg the sum of Seventy-five Dollars and any necessary transportation expenses incurred thereby.

4. Conversion: Ransburg will grant, upon written request by User, the right to use said Process otherwise than as described in Paragraph 1 unless in Ransburg's opinion the requested use involves unsafe practices or impractical conditions or is in conflict with the policies or commitments of Ransburg. Such conversion shall be made only after Ransburg has agreed thereto in writing.

5. Liability: User agrees that Ransburg shall not be liable to User for any loss, cost, expense, or damage arising from any failure of said Process or equipment to function in any particular manner or to electrostatically spray any particular article or assembly, or for any claim resulting from the use, operation, or condition of the equipment furnished by Ransburg while said equipment is in the possession or custody of User. User further agrees to reimburse Ransburg for any loss which may be substained as a result of any liability to third parties for any claim resulting from the use, operation, or condition of the equipment furnished by Ransburg while said equipment is in the possession or custody of User.

6. Use of Equipment: User agrees to follow Ransburg's safety and operating recommendations and to maintain Ransburg's equipment in as good condition as when installed, ordinary wear and tear from proper use and operation alone excepted. User agrees that it shall not use or operate Ransburg's equipment with any of the parts or safety devices removed and to reimburse Ransburg for

loss of or damage to Ransburg's equipment while in User's possession or custody, ordinary wear and tear from proper use and operation alone excepted.

7. Title: Title to all equipment furnished by Ransburg shall at all times remain in Ransburg, and said equipment shall remain personal property regardles of how it is affixed to the realty. Ransburg shall have at all times, during business hours, the right to enter User's premises for the purpose of determining whether its equipment and said Process are being used as herein provided. User shall not have the right, without the written consent of Ransburg, to (1) lease or grant the right to use the equipment furnished by Ransburg to any person, firm, or corporation, (2) remove it from the plant to which it is delivered for installation, or(3) use it for any purpose or in any manner other than as herein provided. Upon termination of this agreement, User agrees to deliver the equipment furnished by Ransburg, freight prepaid, to Ransburg at Indianapolis, Indiana, in as good condition as when installed, ordinary wear and tear incident to its proper use and operation alone excepted.

148 8. Performance. The performance of the obligations of both parties hereunder is subject to strikes and lockouts, whether in the organization of either party or elsewhere, and accidents, fires, delays in manufacture or transportation, acts of God, embargoes or any governmental action as well as any causes for postponement or non-performance over which the parties have no control; and any failure, due to any of such causes, of either party to perform any of its obligations herein set forth shall not be considered a violation of this agreement.

9. Termination: User shall have the right to terminate this agreement at any time upon thirty days' written notice to Ransburg, provided User has fulfilled its obligations hereunder and returns Ransburg's equipment prepaid to

Ransburg within thirty days after such notification in as good condition as when installed, ordinary wear and tear from proper use and operation alone excepted. Ransburg shall have the right to terminate this agreement at any time after three years from the date of Ransburg's acceptance hereof upon six months' written notice to User.

In the event User shall fail to perform any of the conditions or obligations of this agreement, and such failure shall continue or recur after written notice thereof from Ransburg, Ransburg may (without prejudice to its rights to recover any amounts owing by User as herein provided or any damages for breach of this agreement) terminate this agreement and take possession of its equipment, and for that purpose permission is hereby given Ransburg or any of its agents to enter any premises wherein its equipment is located, to discover and take possession of its equipment without notice and without being liable to any suit, action, indictment, or other proceedings by User or anyone claiming under it. Any delay, concession, or indulgence on the part of Ransburg in enforcing any of its rights on any default shall not be deemed a waiver of such rights.

10. Fees: User agrees to pay to Ransburg an intial fee of .....

.....,

within sixty days after date of shipment of Ransburg's equipment or thirty days after date of installation thereof, whichever occurs earlier. In the event User has not requested shipment of Ransburg's equipment prior to the termination of this agreement or within six months of the date of Ransburg's acceptance of this agreement, whichever is earlier, one-half of the initial fee shall become due and payable forthwith, and the balance of it shall be due and payable as provided hereinabove. User further agrees

to pay Ransburg, on or before the tenth day of each calendar month during the life of this agreement, a monthly fee.

149 Monthly fees under this agreement shall start with the date of installation of Ransburg's equipment or thirty days after the date of shipment thereof from Ransburg's plant, whichever occurs earlier, and the first payments shall be made on or before the tenth day of the calendar month following. For the first and last payments of monthly fees under this agreement, the basic minimum monthly fee specified above shall be prorated according to the portion of the month for which it is payable.

In addition to the above fees, User agrees to pay, or to reimburse Ransburg if it should be obliged to pay, directly or indirectly any taxes, licenses, or fees imposed by the laws of any State, of any political subdivision, of any municipality, or of any other governmental authority by reason of the installation, possession, use, or location of any equipment furnished by Ransburg pursuant to this agreement. Such sums as may be due under this provision shall be paid separately or added to the invoice for other payments as the law may require or as Ransburg may determine.

If User does not request shipment of Ransburg's equipment prior to the expiration of six months after the date of Ransburg's acceptance of this agreement, Ransburg shall have the right prior to shipment of its equipment to change the fees and conditions of this agreement to conform to its policy as of the date of such shipment.

During the term of this agreement, the basic minimum monthly fee specified above and the sum set forth in Paragraph 3 shall from time to time be adjusted commensurately with changes, from the value for November 15, 1950, in the Consumer's Price Index for Moderate-Income Families in Large Cities, as determined by the Bureau of Labor Statistics of the U. S. Department of

Labor, on the 1935-39 base; provided, however, that only a change of at least ten percentage points in the value of said Index shall require any such adjustment.

Upon request of Ransburg, User shall supply Ransburg with a written report showing the monthly quantity of coating material used in said unit and the cost to User of said coating material. User agrees to keep permanent books of account from which the correctness of said written reports can be verified and agrees that such books of account shall be open to inspection by Ransburg or its duly authorized representatives at any time during User's regular business hours.

11. Future Inventions: User agrees that in the event User acquires, from any source, any inventions, improvements, or letters patent, domestic or foreign, pertaining to methods and or apparatus for electrostatically depositing liquid spray particles formed by airless atomization (without the use of compressed air), Ransburg shall have with respect to coating methods and apparatus employing said inventions, improvements, and the subject matter of said letters patent, a royalty-free, non-exclusive, assignable license, with right to sublicense, such license to be irrevocable except upon voluntary surrender by Ransburg. Patents subject to Ransburg's rights under this paragraph shall include only patents acquired by User during the term of this agreement, patents acquired by User within two years following termination of this agreement, and patents whenever acquired by User which cover inventions and improvements made within the term of this agreement or within two years following its termination.

12. Execution of Agreement: This agreement sets forth the entire agreement and understanding between the parties as to the subject matter of this agreement, and no statements, conditions, or representations, either oral or written, made by the parties, their employees, or agents,

including conditions or provisions appearing in any purchase order or other instrument issued by User, shall be valid or binding unless contained in a written instrument signed by both parties. Ransburg makes no warranties of any kind, express or implied, except as set forth in this agreement.

All the rights and privileges of Ransburg hereunder shall be extended to and inure to the benefit of the successors in business or assigns of Ransburg upon User being given written notice of the assignment of this agreement to such successors in business or assigns and upon the written acceptance by such successors in business or assigns of all Ranburg's obligations hereunder.

This agreement is submitted in quadruplicate for execution by User. It shall become a contract only upon its execution and acceptance by Ransburg at Ransburg's home office in Indianapolis, Indiana, and shall be effective under the laws of Indiana.

In Witness Whereof, the parties have caused this agreement to be executed by an authorized officer or person effective as of the date of acceptance by Ransburg set forth below.

..... (User)

By .....

(Title)

Executed and accepted this ..... day of ..... , 195.....

Ransburg Eeltcro-Coating Corp.
(Ransburg),

By .....

Form No. 431.

5

154 Exhibit D-29.

Adopted June, 1953.

Serial No.....

Ransburg Electro-Spray Agreement.

This agreement, entered into by and between Ransburg Electro-Coating Corp., an Indiana corporation having its principal place of business at Indianapolis, Indiana, hereinafter called "Ransburg," and

.....

hereinafter called "User," Witnesseth:

Whereas, Ransburg is the owner of, or otherwise has the right to grant licenses under, certain inventions, United States letters patent, or patent applications pertaining to and covering methods and apparatus used in electrostatically depositing liquid spray particles formed by airless atomization (without the use of compressed air), the process so used being hereinafter referred to as "said Process," has acquired much engineering data and experience pertaining to said Process, is conducting research in that field, has performed a substantial amount of engineering in adapting said Process to commercial use, has supplied User with the results of said engineering pertinent to User's production, and has designed special equipment therefor; and

Whereas, User desires to use said Process and benefit from Ransburg's engineering and requests that Ransburg furnish certain special equipment hereinbelow described;

Now, therefore, it is mutually agreed as follows:

1. License: In consideration of the payment by User of the fees herein provided, Ransburg hereby grants to User, subject to and in accordance with all of the terms and conditions of this agreement and while the same is in

effect, a nonexclusive, nonassignable license to use said Process at User's plant in ....., with one unit as shown in Ransburg's Drawing No. ....., subject to such changes therein and such further specifications as Ransburg may prescribe, for electrostatically coating .....

.....

2. Equipment: Ransburg will furnish User, for its use of said Process, high voltage, atomizing, and liquid supply apparatus and electrical controls therefor and such other equipment as Ransburg deems desirable, which will be shipped prepaid to User's aforesaid plant upon request of User. As parts of Ransburg's equipment become defective, User agrees to return prepaid all such defective parts to Ransburg promptly. Ransburg will furnish replacements, without charge, of any such defective parts which become defective as a result of ordinary wear and tear from proper use and operation, provided such parts are returned to Ransburg within thirty days after they become defective. If said defective parts become defective from improper use, operation, or negligence of User or if said defective parts are not returned to Ransburg within said thirty-day period, User agrees to pay Ransburg Ransburg's standard charges for furnishing replacements for said defective parts. The furnishing of equipment and replacements by Ransburg is subject to the availability to Ransburg of the necessary component parts of the equipment and replacements and to prior shipment commitments of Ransburg. User shall furnish all labor, materials, and equipment necessary for the use of said Process except the equipment to be furnished by Ransburg in accordance with this paragraph.

3. Supervision: Ransburg will furnish supervision necessary for placing its equipment in readiness for operation. Should Ransburg's supervisor make more than one

trip to the plant of User or be delayed there for any cause not chargeable to Ransburg, then for each day of such trip or trips or of such delay, User shall pay Ransburg the sum of Seventy-five Dollars and any necessary transportation expenses incurred thereby.

4. Conversion: Ransburg will grant, upon written request by User, a license to use said Process, otherwise than as described in Paragraph 1 unless in Ransburg's opinion the requested use involves unsafe practices or impractical conditions or is in conflict with the policies or commitments of Ransburg. Such conversion shall be made only after Ransburg has agreed thereto in writing.

5. Liability: User agrees that Ransburg shall not be liable to User for any loss, cost, expense, or damage arising from any failure of said Process or equipment to function in any particular manner or to electrostatically spray any particular article or assembly, or for any claim resulting from the use, operation, or condition of the equipment furnished by Ransburg while said equipment is in the possession or custody of User. User further agrees to reimburse Ransburg for any loss, cost, expense, or damage which may be sustained as a result of any liability to third parties for any claim resulting from the use, operation, or condition of the equipment furnished by Ransburg while said equipment is in the possession or custody of User.

6. Use of Equipment: User agrees to follow Ransburg's safety and operating recommendations and to maintain Ransburg's equipment in as good condition as when installed, ordinary wear and tear from proper use and operation alone excepted. User agrees that it shall not use or operate Ransburg's equipment with any of the parts or safety devices removed and to reimburse Ransburg for loss of or damage to Ransburg's equipment while in User's possession, or custody, ordinary wear and tear from proper use and operation alone excepted.

155 7. Title: Title to all equipment furnished by Ransburg shall at all times remain in Ransburg, and said equipment shall remain personal property regardless of how it is affixed to the realty. Ransburg shall have at all times, during business hours, the right to enter User's premises for the purpose of determining whether its equipment and said Process are being used as herein provided. User shall not have the right, without the written consent of Ransburg, to (1) lease or grant the right to use the equipment furnished by Ransburg to any person, firm, or corporation, (2) remove it from the plant to which it is delivered for installation, or (3) use it for any purpose or in any manner other than as herein provided. Upon termination of this agreement, User agrees to deliver the equipment furnished by Ransburg, freight prepaid, to Ransburg at Indianapolis, Indiana, in as good condition as when installed, ordinary wear and tear incident to its proper use and operation alone excepted.

8. Performance: The performance of the obligations of both parties hereunder is subject to strikes and lockouts, whether in the organization of either party or elsewhere, and to accidents, fires, delays in manufacture or transportation, acts of God, embargoes or any governmental action, as well as any causes for postponement, or nonperformance over which the parties have no control; and any failure, due to any of such causes, of either party to perform any of its obligations herein set forth shall not be considered a violation of this agreement.

9. Termination: User shall have the right to terminate this agreement at any time upon thirty days' written notice to Ransburg, provided User has fulfilled its obligations hereunder and returns Ransburg's equipment to Ransburg prepaid within thirty days after such notification in as good condition as when installed, ordinary wear and tear from proper use and operation alone excepted. Ransburg

shall have the right to terminate this agreement at any time after three years from the date of Ransburg's acceptance hereof upon six months' written notice to User.

In the event User shall fail to perform any of the conditions or obligations of this agreement, and such failure shall continue or recur after written notice thereof from Ransburg, Ransburg may (without prejudice to its rights to recover any amounts owing by User as herein provided or any damages for breach of this agreement) terminate this agreement and take possession of its equipment forthwith, and for that purpose permission is hereby given Ransburg or any of its agents to enter any premises wherein its equipment is located, to discover and take possession of its equipment without notice and without being liable to any suit, action, indictment, or other proceedings by User or anyone claiming under it. Any delay, concession, or indulgence on the part of Ransburg in enforcing any of its rights on any default shall not be deemed a waiver of such rights.

10. Fees: User agrees to pay to Ransburg an initial fee of .....

within sixty days after date of shipment of Ransburg's equipment or thirty days after date of installation thereof, whichever occurs earlier. In the event User has not requested shipment of Ransburg's equipment prior to the termination of this agreement or within six months of the date of Ransburg's acceptance of this agreement, whichever is earlier, one-half of the initial fee shall become due and payable forthwith, and the balance of it shall be due and payable as provided hereinabove. User further agrees to pay Ransburg, on or before the tenth day of each calendar month during the life of this agreement, a monthly fee

156 Monthly fees under this agreement shall start with the date of installation of Ransburg's equipment or

thirty days after the date of shipment thereof by Ransburg, whichever occurs earlier, and the first payment shall be made on or before the tenth day of the calendar month following. For the first and last payments of monthly fees under this agreement, the basic minimum monthly fee specified above shall be prorated according to the portion of the month for which it is payable.

In addition to the above fees, User agrees to pay, or to reimburse Ransburg if it should be obliged to pay, directly or indirectly, any taxes, licenses, or fees imposed by the laws of any State, of any political subdivision, of any municipality, or of any other governmental authority by reason of the installation, possession, use, or location of any equipment furnished by Ransburg pursuant to this agreement. Such sums as may be due under this provision shall be paid separately or added to the invoice for other payments as the law may require or as Ransburg may determine.

If User does not request shipment of Ransburg's equipment prior to the expiration of six months after the date of Ransburg's acceptance of this agreement, Ransburg shall have the right, prior to shipment of its equipment, to change the fees and conditions of this agreement to conform to its policy as of the date of such shipment.

During the term of this agreement, the basic minimum monthly fee specified above and the sum set forth in Paragraph 3 shall from time to time be adjusted commensurately with changes, from the value for November 15, 1950, in the Consumer Price Index, Large Cities Combined, as determined by the Bureau of Labor Statistics of the U. S. Department of Labor, on the 1947-49 base; provided, however, that only a change of at least ten percentage points in the value of said Index shall require any such adjustment.

Upon request of Ransburg, User shall supply Ransburg

with a written report showing the monthly quantity of coating material used in said unit and the cost to User of said coating material. User agrees to keep permanent books of account from which the correctness of said written reports can be verified and agrees that such books of account shall be open to inspection by Ransburg or its duly authorized representatives at any time during User's regular business hours.

11. Future Inventions: User agrees that in the event User acquires, from any source, any inventions, improvements, or letters patent, domestic or foreign, pertaining to methods and/or apparatus for electrostatically depositing liquid spray particles formed by airless atomization (without the use of compressed air), Ransburg shall have with respect to coating methods and apparatus employing said inventions, improvements, and the subject matter of said letters patent, a royalty-free, nonexclusive, assignable license, with right to sublicense, such license to be irrevocable except upon voluntary surrender by Ransburg. Patents subject to Ransburg's rights under this paragraph shall include only patents acquired by User during the term of this agreement, patents acquired by User within two years following termination of this agreement, and patents whenever acquired by User which cover inventions and improvements made within the term of this agreement or within two years following its termination.

12. Execution of Agreement: This agreement sets forth the entire agreement and understanding between the parties as to the subject matter of this agreement, and no statements, conditions, or representations, either oral or written, made by the parties, their employees, or agents, including conditions or provisions appearing in any purchase order or other instrument issued by User, shall be valid or binding unless contained in a written instrument signed by both parties. Ransburg makes no warranties of

any kind, express or implied, except as set forth in this agreement.

All the rights and privileges of Ransburg hereunder shall be extended to and inure, to the benefit of the successors in business or assigns of Ransburg upon User being given written notice of the assignment of this agreement to such successors in business or assigns and upon the written acceptance by such successors in business or assigns of all Ransburg's obligations hereunder.

This agreement is submitted in quadruplicate for execution by User. It shall become a contract only upon its execution and acceptance by Ransburg at Ransburg's home office in Indianapolis, Indiana, and shall be effective under the laws of the State of Indiana.

In Witness Whereof, the parties have caused this agreement to be executed by an authorized officer or person effective as of the date of acceptance by Ransburg set forth below.

.....(User)

By .....

(Title)

Executed and accepted this.....day of .....,195.....

Ransburg Electro-Coating Corp. (Ransburg)

By.....

(Title)

168 Exhibit D-35.

Adopted July, 1955.

Serial No. .....

Ransburg Electro-Spray Agreement.

This agreement, entered into by and between Ransburg Electro-Coating Corp., an Indiana corporation, having its principal place of business at Indianapolis, Indiana, hereinafter called "Ransburg," and .....

.....

.....,

hereinafter called "User," Witnesseth:

Whereas, Ransburg is the owner of, or otherwise has the right to grant licenses under, certain United States letters patent and inventions pertaining to and covering methods and apparatus used in electrostatically depositing liquid spray particles formed by airless atomization (without the use of compressed air), the process so used being hereinafter referred to as "said Process," has acquired much engineering data and experience pertaining to said Process, is conducting research in that field, has performed a substantial amount of engineering in adapting said Process to commercial use, has supplied User with results of said engineering pertinent to User's production, and has designed special equipment therefor; and

Whereas, User desires to use said Process and benefit from Ransburg's engineering and requests that Ransburg furnish certain special equipment hereinbelow described;

Now, therefore, it is mutually agreed as follows:

1. License: Ransburg hereby grants to User, subject to and in accordance with all of the terms and conditions of this agreement and while the same is in effect, a non-

exclusive, nonassignable license to use said Process at User's plant in ....., with ..... as shown in Ransburg's Drawing No. ....., subject to such changes therein and such further specifications as Ransburg may prescribe, for electrostatically coating .....

.....

2. Equipment and Service: Ransburg will furnish User, for its use of said Process, high voltage, atomizing, and liquid supply apparatus and electrical controls therefor and such other equipment as Ransburg deems desirable, which will be shipped prepaid to User's aforesaid plant upon request of User. As parts of Ransburg's equipment become defective, User agrees to return prepaid to Ransburg promptly all such defective parts. Ransburg will furnish replacements, without charge, of any such defective parts which become defective as a result of ordinary wear and tear from proper use and operation, provided such parts are returned to Ransburg within thirty days after they become defective. If defective parts become defective from improper use, operation, or negligence of User or if defective parts are not returned to Ransburg within said thirty-day period, User agrees to pay Ransburg Ransburg's standard charges for furnishing replacements for defective parts.

Ransburg will furnish supervision necessary for placing its equipment in readiness for operation. Should Ransburg's supervisor make more than one trip to the plant of User or be delayed there for any cause not chargeable to Ransburg, then for each day of such trip or trips or of such delay, User shall pay Ransburg the sum of Seventy-five Dollars and any necessary transportation expenses incurred thereby.

User shall furnish all labor, materials, and equipment necessary for the use of said Process except the equipment

and supervision to be furnished by Ransburg in accordance with this paragraph.

The furnishing of equipment, replacements, and supervision by Ransburg is subject to the availability to Ransburg of the necessary component parts of the equipment and replacements, to prior shipment commitments of Ransburg, to strikes and lockouts, whether in the organization of Ransburg or elsewhere, and to accidents, fires, delays in manufacture or transportation, acts of God, court injunctions, or any governmental action, as well as any causes for postponement or nonperformance over which Ransburg has no control; and any failure, due to any of such causes, of Ransburg to perform any of its obligations herein set forth shall not be considered a breach of this agreement.

169 3. Title and Use of Equipment: Title to all equipment furnished by Ransburg including replacements shall at all times remain in Ransburg, and said equipment shall remain personal property regardless of how it is affixed to the realty. Ransburg shall have at all times, during business hours, the right to enter User's premises for the purpose of determining whether its equipment and said Process are being used as herein provided. User shall not have the right, without the written consent of Ransburg, to (1) lease or grant the right to use the equipment furnished by Ransburg to any person, firm, or corporation, (2) remove it from the plant to which it is delivered for installation, or (3) use it for any purpose or in any manner other than as herein provided.

User agrees that it shall not use or operate Ransburg's equipment with any of the parts or safety devices removed, that it shall follow Ransburg's safety and operating recommendations, and that it shall maintain Ransburg's equipment in as good condition as when installed, ordinary wear and tear from proper use and operation alone excepted.

4. Liability: User agrees that Ransburg shall not be liable to User for any loss, cost, expense, or damage resulting from any failure of said Process or equipment to function in any particular manner or to electrostatically coat any particular article or assembly or resulting from the installing, servicing, adjusting, presence, use, operation or condition of Ransburg's equipment. User also agrees to reimburse Ransburg for any loss, cost, expense, or damage Ransburg may sustain because of any claims by third parties resulting from the installing, servicing, adjusting, presence, use, operation or condition of Ransburg's equipment. User shall be liable to Ransburg for any loss of, or damage to, Ransburg's equipment occurring at any time that such equipment is in the possession of User or any of its agents, ordinary wear and tear from proper use and operation alone excepted.

5. Termination: User shall have the right to terminate this agreement at any time upon thirty days' written notice to Ransburg, provided User has fulfilled its obligations hereunder including the return of Ransburg's equipment. Ransburg shall have the right to terminate this agreement at any time after three years from the date of Ransburg's acceptance hereof upon six months' written notice to User.

In the event User shall fail to perform any of the conditions or obligations of this agreement, and such failure shall continue or recur after written notice thereof from Ransburg, Ransburg may (without prejudice to its rights to recover any amounts owing by User as herein provided or any damages for breach of this agreement) terminate this agreement and take possession of its equipment forthwith, and for that purpose permission is hereby given Ransburg or any of its agents to enter any premises wherein its equipment is located to discover and take possession of its equipment without notice and without being liable to any suit, action, indictment, or other proceedings by User or anyone claiming under it. Any delay, concession,

or indulgence on the part of Ransburg in enforcing any of its rights on any default shall not be deemed a waiver of such rights.

After notice of termination of this agreement, User agrees to deliver the equipment furnished by Ransburg, to Ransburg at Indianapolis, Indiana, freight prepaid, in as good condition as when installed, ordinary wear and tear incident to its proper use and operation alone excepted.

6. Fees: User agrees to pay to Ransburg an initial fee of .....,

within sixty days after date of shipment of Ransburg's equipment or thirty days after date of installation thereof, whichever occurs earlier. In the event User has not requested shipment of Ransburg's equipment prior to the termination of this agreement or within six months of the date of Ransburg's acceptance of this agreement, whichever is earlier, one-half of the initial fee shall become due and payable forthwith, and the balance of it shall be due and payable as provided hereinabove. For each calendar month during which this agreement is in effect, User also agrees to pay to Ransburg a monthly fee

170 The first period for which a monthly fee is payable shall commence with the date of installation of Ransburg's equipment, or thirty days after the date of shipment thereof by Ransburg, whichever occurs earlier. With respect to any fractional calendar month for which a monthly fee is payable, the basic minimum monthly fee shall be prorated according to the portion of the month for which it is payable. Within ten days after the end of each calendar month for which a monthly fee is payable, User will furnish to Ransburg upon forms furnished by Ransburg, or, in the absence thereof, upon any reasonably adequate form, a written report setting forth in reasonable detail the information upon which the aforesaid monthly fee may be computed and shall pay to Ransburg

at its office at Indianapolis, Indiana, the monthly fee payable for said month. User agrees to keep permanent books of account from which the correctness of said written reports can be verified and agrees that such books of account shall be open to inspection by Ransburg or its duly authorized representatives at any time during User's regular business hours.

In addition to the above fees, User agrees to pay, or to reimburse Ransburg if it should be obliged to pay, directly or indirectly, any taxes, licenses, or fees imposed by the laws of any State, of any political subdivision, of any municipality, or of any other governmental authority by reason of the installation, possession, use, or location of any equipment furnished by Ransburg or by reason of the furnishing of any services by Ransburg pursuant to this agreement. Such sums as may be due under this provision shall be paid separately or added to the invoice for other payments as the law may require or as Ransburg may determine.

If User does not request shipment of Ransburg's equipment prior to the expiration of six months after the date of Ransburg's acceptance of this agreement, Ransburg shall have the right, prior to shipment of its equipment, to change the fees and conditions of this agreement to conform to its policy as of the date of such shipment.

During the term of this agreement, the basic minimum monthly fee specified above and the sum set forth in Paragraph 2 may from time to time be adjusted commensurately with changes, from the value for November, 1950, in the Consumer Price Index, Large Cities Combined, All Items, as determined by the Bureau of Labor Statistics of the U. S. Department of Labor, on the 1947-49 base, or any successor thereto; provided, however, no such adjustment shall be made unless a change of at least ten percentage points has occurred in said Index prior to each such adjustment.

7. Execution of Agreement: This agreement sets forth the entire agreement and understanding between the parties as to the subject matter of this agreement, and no statements, conditions, or representations, either oral or written, made by the parties, their employees, or agents, including conditions or provisions appearing in any purchase order or other instrument issued by User, shall be valid or binding unless contained in a written instrument signed by both parties. Ransburg makes no warranties of any kind, express or implied, except as set forth in this agreement.

All the rights and privileges of Ransburg hereunder shall be extended to and inure to the benefit of the successors in business or assigns of Ransburg upon User being given written notice of the assignment of this agreement to such successors in business or assigns and upon the written acceptance by such successors in business or assigns of all Ransburg's obligations hereunder.

This agreement consisting of three pages is submitted in quadruplicate for execution by User. It shall become a contract only upon its execution and acceptance by Ransburg at Ransburg's home office in Indianapolis, Indiana, and shall be effective under the laws of the State of Indiana.

In Witness Whereof, the parties have caused this agreement to be executed by an authorized officer or person effective as of the date of acceptance by Ransburg set forth below.

Executed and accepted by Ransburg this ..... day of ....., 195....

Ransburg Electro-Coating Corp. (Ransburg)

By.....

(Title)

..... (User)

By.....

(Title)

Exhibit E.

224

I	II	III	IV	V	VI
Licensee	Date	Without Air	Active Without Air on 10-11-56	With Air	Form Used
	2- 6-56			x	D-20
AMF Cycle Co.	2- 6-56			x	D-20
Little Rock, Ark.	2-23-53	x			D-26
The A. P. Parts Corp.	2- 1-55			x	D-15
Toledo, Ohio	2-25-48			x	D-1
Acme Visible Records, Inc.	2- 7-50			x	D-5
Chicago, Ill.	12-11-52	x	x		D-26
Acoustics Mfg. Corp.	6-30-55	x	x		D-32
Detroit, Mich.					
Admiral Corp.	6- 7-56			x	D-20
Chicago, Ill.					
Ainsworth Mfg. Co.	9- 5-48			x	D-1
Detroit, Mich.					
Air-Maze Corp.	1-11-52			x	D-7
Cleveland, Ohio					
Airway Finishing Corp.	10-31-50			x	D-5
Chicago, Ill.	4-16-51	x			D-23
Algonquin Corp.	11-21-52			x	D-9
Detroit, Mich.	11-21-52			x	D-9
All-Lite Mfg. Co.	11- 2-48			x	D-1
Chicago, Ill.					
All-Steel Equip. Inc.	8-10-53	x			D-29
Aurora, Ill.	4-21-52	x	x		D-25
	2-11-55	x	x		D-32
	5-16-55	x	x		D-32
	5-15-56	x	x		D-35
	8-31-56	x	x		D-36

225

I	II	III	IV	V	VI
Licensee	Date	Without Air	Active Without Air on 10-11-56	With Air	Form Used
Allen Industries, Inc.	10- 7-52			x	D-10
Leland and G. T. R. R.					
Detroit 7, Michigan					
Alon Mfg. Co.	7-22-54	x	x		D-29
Philadelphia, Pa.					
Alside, Inc.	4-16-48			x	D-1
Akron, Ohio					
Altex Corp.	7- 9-52	x	x		D-26
Milwaukee, Wis.					
Aluminum Goods Mfg. Co.	7- 3-51	x			D-24
Manitowoc, Wis.					

I	II	III	IV	V	VI
Licensee	Date	Without Air	Active Without Air on 10-11-56	With Air	Form Used
American & Southern Corp. Nashville, Tenn.	12-15-54	x			D-31
American Meter Co., Inc.	3-29-56	x	x		D-35
Philadelphia, Pa.	*2-21-56	x	x		D-35
American Motors Corp. Kenosha, Wis.	8- 4-55	x	x		D-35
American Radiator &	7-23-48			x	D-1
Standard Sanitary Corp.	3-21-56	x	x		D-35
Buffalo, New York	4-16-56	x	x		D-35
American Seating Co.	5- 5-48			x	D-1
Grand Rapids, Mich.	12-18-52	x	x		D-26
	4- 6-56	x	x		D-35
	4- 6-56	x	x		D-35
Amer. Welding & Mfg. Co. Warren, Ohio	5- 7-48			x	D-1
226					
Amerock Corp.	8-30-54	x	x		D-31
Rockford, Ill.	4- 2-56	x	x		D-35
O. Ames Co. Parkersburg, W. Va.	1-31-55	x	x		D-32
Anderson-Bolling Mfg. Co.	6-15-55	x	x		D-32
Grand Haven, Mich.	*4- 7-54			x	D-12
	11- 3-53			x	D-12
Andwall Mfg. Co.	6-19-53			x	D-12
Ocònomowoc, Wis.	6-19-53			x	D-12
Angleton Finishing Co. Newark, N. J.	12-30-48			x	D-1
Applied Arts Mfg. Corp. Grand Rapids, Mich.	1-26-56	x	x		D-35
Armstrong Rubber Mfg. Co. Des Moines, Iowa	8-31-50			x	D-5
The Arnold Engineering Co. Los Angeles, Calif.	7- 7-52	x	x		D-26
Arnold, Schwinn & Co.	12-19-49			x	D-1
Chicago, Ill.	9-13-51			x	D-7
Arnot-Jamestown Div.	7- 2-56	x	x		D-35
Aetna Steel Prod. Corp. Jamestown, N. Y.	7-11-56	x	x		D-35
Arrow Safety Device Co. Mt. Holly, N. J.	8-28-50			x	D-3
227					
Arvin Industries, Inc.	1-19-49			x	D-4
Columbus, Ind.	9-20-51	x			D-24
	12-18-51	x			D-25
	8-21-52			x	D-9
	10-11-51	x	x		D-25

I Licensee	II Date	III Without Air	IV Active Without Air on 10-11-56	V With Air	VI Form Used
The Ashtabula Mfg. Co. Ashtabula, Ohio	1-31-56 7-26-54	x x	x		D-35 D-31
Associated Pacific Venice, Calif.	1-13-56	x	x		D-35
The Atlanta Stove Works, Inc. Atlanta, Ga.	12- 1-54	x	x		D-31
Atlas Mfg. Co. St. Paul, Minn.	5- 8-56	x	x		D-35
Atlas Novelty Co. Chicago, Ill.	10-1-48			x	D-1
Atlas Plating Co. Div. Assoc. Baked Enameling Co. Los Angeles, Calif.	5-10-56	x	x		D-35
Auer Register Co. Cleveland, Ohio	1- 9-50			x	D-3
D. L. Auld Co. Columbus, Ohio	6-20-51			x	D-7
Auto Specialties Mfg. Co., Inc. St. Joseph, Michigan	10-30-53 10-30-53	x x	x x		D-29 D-29
228					
Avco Mfg. Corp. Crosley-Bendix Div. Richmond, Ind.	3-30-49 3-30-49			x x	D-4 D-4
Avco Mfg. Corp. Crosley-Bendix Div. Nashville, Tenn.	2- 2-54	x	x		D-29
B. M. C. Mfg. Corp. Binghamton, N. Y.	1-17-52			x	D-7
Barler Metal Prods. Inc. Goshen, Ind.	10-19-49 3-22-51 10-28-54	x x	x	x	D-4 D-23 D-31
Bastian Blessing Co. Chicago, Ill.	4-17-49			x	D-1
Baxter Steel Equip. Co. Indianapolis, Ind.	9-11-56	x	x		D-36
Bell & Howell Chicago, Ill.	1-31-49 10-23-51 10-23-51 6- 8-56	x x x	x x	x	D-1 D-25 D-25 D-35
Bendix Aviation Corp. Eclipse Machine Div. Elmira, New York	5-22-51			x	D-7
Beneke Corp. Columbus, Miss.	12- 1-55 12- 1-55	x x	x x		D-35 D-35

I Licensee	II Date	III Without Air	IV Active Without Air on 10-11-56	V With Air	VI Form Used
Bennett Industries Peotone, Ill.	6-23-52	x	x		D-26
Berger Mfg. Div. Republic Steel Corp. Canton, Ohio	2-17-48			x	D-1
229					
Berns Mfg. Corp. Chicago, Ill.	11- 8-50			x	D-5
Otto Bernz Co. Rochester, N. Y.	9- 1-53	x	x		D-29
Bethlehem Steel Co., Inc. Sparrows Point, Md.	5- 7-56	x			D-35
Binkley Mfg. Co. Warrenton, Mo.	2-12-51			x	D-3
Birtman Electric Co.	7-12-55	x	x		D-35
Chicago, Ill.	1-31-49			x	D-1
Bishop & Babcock Mfg. Co.	4- 3-51			x	D-3
Cleveland, Ohio	1-11-52			x	D-7
Bissell Carpet Sweeper Co. Grand Rapids, Mich.	5- 7-56	x	x		D-35
Blake Mfg. Co. Clinton, Mass.	10-15-48			x	D-1
Wm. R. Bootz Mfg. Co. Evansville, Ind.	7-31-53	x			D-28
The Borg-Erickson Co. Chicago, Ill.	4- 9-48			x	D-1
Borg-Warner Corp. Ingersoll Steel Prod. Chicago, Ill.	11- 6-51			x	D-7
Bowen Prod. Corp. Auburn, New York	12-10-51	x			D-25
230					
Briggs Mfg. Co.	2-24-48			x	D-1
Detroit, Mich.	9-16-53			x	D-12
Briggs & Stratton	7- 1-53			x	D-10
Milwaukee, Wis.	9-14-49			x	D-4
	2-17-55	x	x		D-32
Bristol Sheet Metal Co. Wallingford, Conn.	2- 2-53	x			D-26
The Brunhoff Mfg. Co. Cincinnati, Ohio	4-18-56			x	D-20
The Brunswick Balke Collender Co. Muskegon, Michigan	7-22-54			x	D-12

I	II	III	IV	V	VI
Licensee	Date	Without Air	Active Without Air on 10-11-56	With Air	Form Used
Bryant Heater Div. Affiliated Gas Equip. Inc. Tyler, Tex.	7- 6-53			x	D-10
Buch Mfg. Co. Elizabethtown, Pa.	6-30-55			x	D-16
Bunting Co., Inc.	9- 7-48			x	D-1
Philadelphia, Pa.	7-18-49			x	D-4
The Busch & Thiem Co.	9-13-48			x	D-1
Sandusky, Ohio	1-11-49			x	D-1
Butler Mfg. Co.	1-11-49			x	D-1
Kansas City, Mo.	8-20-51	x			D-23
C & H Air Cond. Fan Co. Atlanta, Ga.	1-12-48			x	D-1
Calif. Parkerizing Co. Oakland, Calif.	10- 2-48			x	D-1
231					
Cameo Doll Prod. Div. Noma Electric Corp. Port Allegheny, Pa.	6-22-48			x	D-1
Carey-McFall Co. Montoursville, Pa.	6-29-51			x	D-7
Carolina Metal Prod. Inc. Charlotte, N. C.	7- 6-55			x	D-16
Carter Craft, Inc. Plano, Texas	11- 1-48			x	D-1
Carter Machine & Tool Co. Dubuque, Iowa	1-27-48			x	D-1
J. I. Case Co. Bettendorf, Iowa	2-11-48			x	D-1
Ceco Steel Prod. Corp.	11-30-51	x	x		D-25
Pittsburgh, Pa.	5-25-54	x	x		D-29
Century Plastic Prod. Inc. Cleveland, Ohio	5-17-55	x	x		D-32
	5- 5-48			x	D-1
Cessna Aircraft Co.	5- 5-48			x	D-1
Wichita, Kansas	5- 5-48			x	D-1
	5- 5-48			x	D-1
Chelsea Products, Inc. Plainfield, N. J.	12-14-53	x	x		D-29
Chicago Rawhide Mfg. Co. Elgin, Illinois	11- 4-55	x	x		D-35
ChromCraft Corp. St. Louis, Mo.	5-25-51	x	x	x	D-24

232

I	II	III	IV	V	VI
Licensee	Date	Without Air	Active Without Air on 10-11-56	With Air	Form Used
Chrysler Corp.	9- 7-54			x	D-12
Automotive Body Div.	9- 7-54			x	D-12
Detroit, Mich.	9- 7-54			x	D-12
	9-27-54			x	D-12
Clemson Bros., Inc. Middletown, N. Y.	1-14-48			x	D-1
Clinton Machine Co. Maquoketa, Iowa	4-20-51			x	D-3
Columbia Mills, Inc. Saginaw, Mich.	11-25-48			x	D-1
Columbia Enameling & Stamping Co. Terre Haute, Ind.	11- 6-52			x	D-9
Combustion Engineering Superheater, Inc. Chattanooga, Tenn.	3-19-48			x	D-1
Conco Eng. Works Mendota, Ill.	10-31-50			x	D-5
Continental Steel Corp. Kokomo, Ind.	3-10-48			x	D-1
Corona Corp. Jersey City, N. J.	3-25-53	x	x		D-26
Croname, Inc. Chicago, Ill.	2-24-50			x	D-5
Cronstroms Mfg. Co., Inc. Minneapolis, Minn.	9-28-55			x	D-16
Crown Can Company	2- 9-48			x	D-1
Philadelphia, Pa.	4-30-54	x	x		D-29
	3-14-55	x	x		D-32

233

James Cunningham, Son & Co., Inc. Rochester, New York	10- 6-53	x			D-29
Curtis Lighting Inc. Chicago, Illinois	10-17-55	x	x		D-35
Daisy Mfg. Co. Plymouth, Mich.	2- 9-53	x	x		D-26
Day & Night Div. Carrier Corp. Monrovia, Calif.	9- 1-48			x	D-1
	7-11-50			x	D-5
	7-11-50			x	D-5
Daystrom Furniture	7-11-50			x	D-5
Olean, New York	5-15-56	x	x		D-35
Dazey Corp. St. Louis, Mo.	7- 6-54	x	x		D-20

234

I	II	III	IV	V	VI
Licensee	Date	Without Air	Active Without Air on 10-11-56	With Air	Form Used
Defiance Automatic Screw Co. Div. of The Zeller Corp. Defiance, Ohio	5-29-52			x	D-9
Del-Val Div. J. W. Rex Co. Lansdale, Pa.	9-28-54			x	D-12
Delta Electric Co. Marion, Indiana	6-12-51	x	x		D-24
Detecto Scales, Inc.	3-26-48			x	D-1
Brooklyn, New York	3-26-48			x	D-1
Detroit Controls Corp.	7-12-48			x	D-1
Detroit, Michigan	6-14-54	x	x		D-29
Detroit Harvester Co.	5-25-55			x	D-16
Moto-Mower Div.	1-31-49			x	D-1
Richmond, Ind.					
Detroit Hdwe. Mfg. Co. Detroit, Mich.	2- 2-53	x	x		D-26
Dexter Industries, Inc. Sub. of Nat'l Brass Co. Grand Rapids, Mich.	2- 9-55	x	x		D-32
R. E. Dietz Mfg. Co.	11- 1-48			x	D-1
Syracuse, N. Y.	1-22-54	x	x		D-29
Diffler Color Div. Pittsburgh Plate Glass Detroit, Mich.	10- 4-50			x	Typed
Do-All Finishing Co.	12-26-51	x			D-25
Chicago, Ill.	4- 4-52			x	D-7
Doehler-Jarvis Div. National Lead Co. Pottstown, Pa.	2-17-55	x	x		D-32
Dominion Elec. Corp.	4-19-46			x	D-1
Mansfield, Ohio	8-25-53	x	x		D-29
Donaldson Co., Inc. St. Paul, Minn.	5-19-48			x	D-1
Dryden Rubber Div. Sheller Mfg. Co. Chicago, Illinois	11-12-53	x	x		D-29
C. A. Dunham Co.	4-13-51	x			D-23
Chicago, Ill.	1-21-55	x			D-32
E. I. DuPont de Nemours	1-18-49			x	D-1
Wilmington, Delaware	11- 4-49			x	D-4
	8-27-52	x	x		D-26
	11- 6-52	x			D-26
	9-23-55	x	x		D-35
	4-26-56	x	x		Typed
	9-23-55	x	x		D-35

235

I	II	III	IV	V	VI
Licensee	Date	Without Air	Active Without Air on 10-11-56	With Air	Form Used
Durham Mfg. Corp. Chicago, Ill.	3-27-56	x	x		D-35
Eagle Mfg. Co. Wellsburg, W. Va.	10-25-49			x	D-4
Eastern Venetian Blind	6-14-49	x			Typed
Baltimore, Md.	10-26-51	x	x		D-25
Eaton Mfg. Co.	4-14-48			x	D-1
Cleveland, Ohio	11- 3-48			x	D-1
	3-13-51			x	D-3
	11- 4-53	x	x		D-29
	11- 4-53	x	x		D-29
	4-19-54	x	x		D-29
	6- 4-54	x	x		D-29
Eaton Metal Prod. Corp. Omaha, Neb.	10-10-51	x			D-25
Eaton Metal Prod. Co. Denver, Colo.	10-23-51	x			D-25
Eldon Mfg. Co. Los Angeles, Calif.	9- 1-48			x	D-1
The Elec. Auto Lite Co.	11-15-48			x	D-1
Cincinnati, Ohio	9-27-50			x	D-5
	2-22-51			x	D-3
	2-22-51			x	D-3
	3- 5-51			x	D-3
	3- 5-51			x	D-3
	4-11-51			x	D-3
	12-22-53	x	x		D-27
	6- 4-56			x	D-20
Electrocraft, Inc. Mukwonago, Wis.	10-27-53			x	D-12
Electrolux Corp. Old Greenwich, Conn.	1-31-49			x	D-1
Embury Mfg. Co. Warsaw, N. Y.	11-16-48			x	D-1

236

Emerson Electric Co. St. Louis, Mo.	4-14-48			x	D-1
Enameled Steel & Sign	3-21-4[illegible]	x			Typed
Chicago, Ill.	1- 3-50			x	D-4
	6- 5-50			x	D-5
	2-19-51	x			D-23
	12- 1-52	x			Typed
	3-22-56	x	x		Typed
Enamelers & Japanners Chicago, Ill.	2-11-48			x	D-1
Endemano Plating Co., Inc. Huntington Park, Calif.	5-28-48			x	D-1

I	II	III	IV	V	VI
Licensee	Date	Without Air	Active Without Air on 10-11-56	With Air	Form Used
The Erle Art Metal Co. Erie, Pa.	11-14-55	x	x		D-35
Evans Products Co.	3- 5-54			x	D-12
Plymouth, Mich.	7-13-54	x	x		D-29
Excelsior Mfg. Co. Michigan City, Ind.	12- 4-52			x	D-9
F. & N. Lawnmower Co. Richmond, Ind.	8-16-48			x	D-1
	9-18-50			x	D-5
R. D. Fageol Co.	9-18-50			x	D-5
Detroit, Mich.	9-18-50			x	D-5
Federal Fabricators & Finishers	6-12-56	x	x		D-35
Chicago, Ill.	11- 5-51			x	D-7
Flat Metal Mfg. Co., Inc.	1-28-49			x	D-1
Long Island, N. Y.	11-16-48			x	D-1
237					
Fluorescent Fixtures of Calif. San Francisco, Calif.	10-21-54	x	x		D-31
Firecraft Corp. Chicago, Ill.	10-26-49			x	D-4
Forgee Metal Prod., Inc. Paulsboro, N. J.	12- 9-53			x	D-12
Free Sewing Mach. Co. Rockford, Ill.	3-21-50			x	D-5
Friden Calculating Mach. Co., Inc.	6-17-49			x	D-1
	6-17-48			x	D-1
San Leandro, Calif.	6- 7-56	x	x		D-35
The Frito Co. Dallas, Tex.	3-16-53			x	D-9
Frontier Mfg. Co. Dallas, Tex.	8-23-48			x	D-1
Fuller Brush Co. Hartford, Conn.	5-28-48			x	D-1
The Fyr-Fyter Co. Dayton, Ohio	12-11-48			x	D-1
Gabriel Co.	9- 7-46			x	D-1
Cleveland, Ohio	1-16-49			x	D-1
	7- 1-53	x			D-27
Gale Products Galesburg, Ill.	4- 7-52			x	D-7
Garland Mfg. Co. Detroit, Mich.	8-20-56			x	D-21

238

I	II	III	IV	V	VI
Licensee	Date	Without Air	Active Without Air on 10-11-56	With Air	Form Used
General Dry Batteries, Inc. Cleveland, Ohio	11-23-48			x	D-1
	4-13-54	x	x		D-29
General Elec. Co.	10-29-52	x			D-26
Schenectady, N. Y.	11-25-52	x	x		D-26
	6-22-53	x	x		D-27
	11-17-53	x	x		D-29
	4-13-54	x	x		D-29
	7-27-54	x	x		D-29
	11-29-54	x	x		D-31
	12- 1-54	x	x		D-31
	4- 4-55	x	x		D-32
	7-26-55	x	x		D-35
	8- 2-55	x	x		Typed
	2- 9-56	x	x		D-35
	3-12-56	x	x		Typed
	2- 9-56	x	x		D-35
	2-15-56	x	x		D-35
	2-28-56			x	D-20
	5- 7-56	x	x		D-35
	2-15-56	x	x		D-35
General Water Heater Co. Burbank, Calif.	6-29-54	x	x		D-29
Gerity-Michigan Corp. Adrian, Mich.	3-28-52			x	D-7
Geuder, Paaschke & Frey Lebanon, Ind.	4- 2-51	x	x		D-23
Gibson Refrigerator Co.	8- 2-49			x	D-4
Greenville, Mich.	8- 2-49			x	D-4
Gibson Mfg. Co.	9-25-56	x	x		D-36
Atlanta, Ga.	6-21-56	x			D-35
Glenvale Products Div. Malvern, Ark.	10-29-51			x	D-7
Globe Lighting Prod. Inc. Los Angeles, Calif.	2- 9-55	x	x		D-31

239

Goerlich's, Inc. Toledo, Ohio	8-11-49			x	D-4
Goodyear Aircraft Corp. Akron, Ohio	3-30-50			x	D-5
The Graber Co. Middleton, Wis.	10-22-51	x	x		D-25
Grammes, L. F. & Sons, Inc.	6-15-48			x	D-1
Allentown, Pa.	10-30-52			x	D-9
Grand Rapids Brass Co. Grand Rapids, Mich.	1-13-50			x	D-5
Grand Rapids Metalcraft Div. F. L. Jacobs Co.	4-16-56	x	x		D-30

I	II	III	IV	V	VI
Licensee	Date	Without Air	Active Without Air on 10-11-56	With Air	Form Used
Grand Rapids, Mich.					
Grand Sheet Metal Prods.	5-20-49			x	D-4
Chicago, Ill.	10-18-50			x	D-5
	11- 6-52			x	D-9
	11-12-54	x	x		D-31
Graphire Corp.	1-29-51			x	D-3
New York, N. Y.					
Griffin Wheel Co.	1-13-56			x	D-20
Chicago, Ill.					
Grigoleit Co.	1-24-51			x	D-3
Decatur, Ill.					
C. M. Hall Lamp Co.	3-12-52			x	D-7
Detroit, Mich.					
Hamill Mfg. Co.	9- 6-56	x	x		D-36
Washington, Mich.					
240					
Hamilton Beach Co.	7- 1-54	x	x		D-27
Div. of Scoville Mfg. Co.					
Racine, Wis.					
	7-24-52	x	x		D-26
Hamilton Mfg. Corp.	11-11-48			x	D-1
Columbus, Ind.	4- 5-50			x	D-5
	7-24-52	x	x		D-26
	10- 5-54	x	x		D-31
	4- 5-50			x	D-5
Hamilton Metal Prod. Co.	4- 5-48			x	D-1
Hamilton, Ohio					
Hampden Specialty Prod. Inc.	9-12-55	x	x		D-35
Easthampton, Mass.	8-14-56	x	x		D-36
Hardy Mfg. Corp.	2-21-56	x	x		D-35
Union City, Ind.					
Harvey Machine Co., Inc.	7-24-51			x	D-7
Torrance, Calif.	2-15-52			x	D-7
Herman Hassinger, Inc.	4- 3-50			x	D-5
Philadelphia, Pa.	1- 8-52	x	x		D-25
Health-Mor, Inc.	5-13-52			x	D-7
Cleveland, Ohio					
M. M. Hedges Mfg. Co., Inc.	11-16-54	x	x		D-31
Chattanooga, Tennessee					
Heineke & Co.	8- 6-49			x	D-4
Springfield, Ill.					
Heintz Mfg. Co.	12-18-53	x	x		D-29
Philadelphia, Pa.	6- 1-54			x	D-12
	4- 5-55	x	x		D-32
Wm. Heller Co., Inc.	2- 6-56	x	x		D-35
Altoona, Pa.					

241

I Licensee.	II Date	III Without Air	IV Active Without Air on 10-11-56	V With Air	VI Form Used
Hemp & Co. Macomb, Ill.	2- 6-51 11- 2-51 11- 1-55 11- 1-55			x x x x	D-3 D-7 D-20 D-20
Henry Furnace Co. Medina, Ohio	9-25-53			x	D-13
Hercules Bldg. Corp. Chicago, Ill.	11- 1-50			x	D-5
Hillgren Mfg. Co. Huntington Park, Calif.	1-19-48 7-13-54			x x	D-1 D-11
Hofmann Industries, Inc. Sinking Springs, Pa.	11- 2-51	x			D-25
The Hoover Company Kingston-Conley Div. No. Plainfield, N. J.	3- 6-50 4-11-56	x	x	x	D-5 D-35
Hotpoint, Inc. Milwaukee, Wisc.	1- 1-49 4- 7-52 2-17-53 2- 8-55 8-31-56	x x x x	x x	x	D-1 D-25 D-26 D-31 D-36
Houdaille-Hershey Corp. Buffalo, N. Y.	10-18-51 11- 1-54	x x	x		D-25 D-31
The Huffman Mfg. Co. Dayton, Ohio	2- 7-55 2- 7-55			x x	D-15 D-15
Hydraulic Tools Corp. Sheboygan, Wis.	11-25-52			x	D-9
Ideal Brass Works, Inc. St. Paul, Minn.	2-16-56	x	x		D-35
Illinois Fabricators Kankakee, Ill.	4-10-53	x	x		D-27

242

Ill. Watch Case Co. Elgin, Ill.	1-16-50			x	D-4
Imperial Lamp & Shade Co., Philadelphia, Pa.	6-10-49			x	D-4
Independent Lock Co. Fitchburg, Mass.	4-26-51			x	D-7
Industrial Lamp Corp. Elkhart, Ind.	10-29-51	x	x		D-25
Industrial Wire Cloth Prod. Corp. Wayne, Mich.	6-27-56	x	x		D-35
Inland Steel Co. E. Chicago, Ind.	4-20-55			x	D-32

I	II	III	IV	V	VI
Licensee	Date	Without Air	Active Without Air on 10-11-56	With Air	Form Used
I.B.M. Corp.	1- 5-48			x	D-1
Endicott, N. Y.	2-15-56	x	x		D-35
	2-15-56	x	x		D-35
Intl. Hdwe. Mfg. Co. Detroit, Mich.	7-22-54	x	x		D-31
Intl. Harvester Co. Chicago, Ill.	8-11-53	x			D-27
Interstate Prec. Prod. Corp. Anaheim, Calif.	4- 7-54	x	x		D-29
Ironrite, Inc.	3-15-50			x	D-5
Mt. Clemens, Mich.	12-11-52	x	x		D-26
Jackes-Evans Mfg. Co. St. Louis, Mo.	9- 8-53			x	D-12
243					
Jamestown Metal Corp.	10-18-48			x	D-1
Jamestown, N. Y.	7-10-51			x	D-7
Jaybee Mfg. Co. Los Angeles, Calif.	4-16-56			x	D-20
Johns-Manville Prods.	5-20-52	x	x		D-26
Waukegan, Ill.	5-20-52	x	x		D-26
Jones & Laughlin Steel Corp. Pittsburgh, Pa.	1- 5-56			x	D-20
H. L. Judd Co. Wallingford, Conn.	2-26-48			x	D-1
Kaywood Corp. Benton Harbor, Mich.	11-15-48			x	D-1
Keeler Brass Co.	8-19-48			x	D-1
Grand Rapids, Mich.	12-10-54	x	x		D-31
O. S. Keene Mach. Co., Inc. Middlebury, Ind.	4-26-55	x	x		D-32
Kent-Moore Organization, Inc. Jackson, Mich.	9-23-52	x			D-26
Keystone Elec. Mfg. Co.	2-20-52	x			D-26
Philadelphia, Pa.	9-20-54	x	x		D-31
King-Seeley Corp. Scio, Michigan	4-16-54	x	x		D-29
Kirsch Co.	3-22-50			x	D-5
Sturgis, Mich.	6-23-52	x	x		D-26
	8-14-56	x	x		D-35
Knox-Warrenton Co. Thomson, Ga.	1-26-51			x	D-3

244

I Licensee	II Date	III Without Air	IV Active Without Air on 10-11-56	V With Air	VI Form Used
Koppers Co., Inc. Baltimore, Md.	1-10-51			x	D-6
Kuehne Mfg. Co. Mattoon, Ill.	2- 6-51			x	D-3
	12-23-53	x	x		D-29
	8- 8-55	x	x		D-32
Kwikset Locks, Inc. Anaheim, Calif.	10- 6-53	x	x		D-29
L C N Closers, Inc. Princeton, Ill.	12- 3-53	x	x		D-29
Landers, Frary & Clark New Britain, Conn.	8- 7-48			x	D-1
	11-17-51	x			D-25
Lawn-Boy Div. of Outboard, Marine & Mfg. Co. Lamar, Mo.	11- 6-52			x	D-9
Lee Metal Prods. Co. Baltimore, Md.	10- 5-48			x	D-1
Lennox Industries, Inc. Columbus, Ohio	4-10-56	x	x		D-35
The Lima Register Co. Lima, Ohio	6-29-54	x	x		D-29
Lincoln Eng. Co. St. Louis, Mo.	8- 3-53	x	x		D-29
Lithonia Finishing Corp. Conyers, Ga.	9-14-56	x	x		D-36
The Lobdell-Emery Mfg. Co. Alma, Mich.	4-19-54			x	D-12
	4-30-54	x	x		D-29
	8-29-55	x	x		D-35

245

Lockvent Chester, Va.	5-26-53			x	D-10
Lonergan Mfg. Co. Albion, Michigan	10-23-51	x			D-25
Los Angeles Parkerizing Los Angeles, Calif.	2-14-55			x	D-15
Lyle Signs, Inc. Minneapolis, Minn.	5-16-56	x	x		D-35
E. J. McAleer & Co., Inc. Philadelphia, Pa.	1-27-48			x	D-1
Geo. F. McMurray Co. Burbank, Calif.	7-17-51	x	x		D-24
Manhattan Castings, Inc. Patterson, N. J.	2-17-49			x	D-1
Manitowoc Equip. Works	1-12-55			x	D-35
Div. of Manitowoc Co., Inc.	1-12-55			x	D-35
Maremount Automotive Prod., Inc. Harvey, Ill.	8-18-49			x	D-4

I	II	III	IV	V	VI
Licensee	Date	Without Air	Active Without Air on 10-11-56	With Air	Form Used
Markstone Mfg. Co. Chicago, Ill.	12-14-49			x	D-4
Martin-Parry Corp. Toledo, Ohio	6-30-48			x	D-1
	9- 1-48			x	D-1
	9- 1-48			x	D-1
The Maytag Co. Newton, Iowa	3-18-55	x	x		D-31
Meldrum Mfg. & Eng. Co. St. Paul, Minn.	2- 1-52	x	x		D-25
246					
Melrose Lighting Co. Philadelphia, Pa.	10-18-55	x	x		D-35
Metal Bed Rail Co. Lexington, N. C.	2-13-56	x	x		D-35
Metal Industries, Inc. Indianapolis, Inc.	10-12-51	x			D-25
	3-10-52			x	D-7
	6- 8-51			x	D-7
Metal Mouldings Corp. Detroit, Michigan	6- 8-51			x	D-7
	6- 8-51			x	D-7
	6- 8-51			x	D-7
Metalcraft Corp. Chicago, Ill.	4-23-54	x	x		D-29
Metalcraft Prod., Inc. Philadelphia, Pa.	9-10-56	x	x		D-36
Mid-City Processing Corp. Chicago, Ill.	1-29-48			x	D-1
Midwest Chandelier Co. No. Kansas City, Mo.	6- 8-56	x	x		D-36
Midwest Mfg. Corp. Galesburg, Ill.	7-26-55	x	x		D-35
Miller Company Utica, Ohio	10-16-53	x	x		D-29
Miller Bros. Co. Los Angeles, Calif.	7- 6-51	x	x		D-24
Mills Metal Compartment Co. Upper Sandusky, Ohio	3- 2-53	x	x		D-27
Mimar Prod. Inc. Brooklyn, N. Y.	2-25-49			x	D-4
Miro-Flex Co., Inc. Wichita, Kans.	1-30-52	x	x		D-25
	9- 9-52	x			D-26
	2-53	x	x		D-26
247					
The Mitchell-Bentley Corp. Ionia Mfg. Co. Div. Iona, Mich.	7- 2-56	x	x		D-35
	8-17-56			x	D-21

I	II	III	IV	V	VI
Licensee	Date	Without Air	Active Without Air on 10-11-56	With Air	Form Used
Mitchell Mfg. Co. Ft. Smith, Ark.	5-10-56			x	D-12
Modern Tool & Die Die Co. Cleveland, Ohio	3- 8-51			x	D-3
Moe Light, Inc. (Thomas, Ind.) Ft. Atkinson, Wis.	6-16-50			x	D-5
Mohawk Brush Co. Albany, New York	12-4-52	x	x		D-26
Monark Silver King, Inc. Chicago, Ill.	8- 5-54 11-30-54 11-30-54	x	x	 x x	D-31 D-14 D-14
Monroe Auto Equip. Co. Monroe, Mich.	1-25-51 1-11-54 6-12-16	x x x	x x x		Typed D-27 D-35
Monroe Calculating Mach. Orange, N. J.	4-26-48			x	D-1
Motor Products Corp. Detroit, Mich.	10-27-48 6-13-50			x x	D-1 D-5
Marion Industries Div. of Motor Prod. Corp. Marion, Ohio	6-13-50 6-13-50 6-13-50			x x x	D-5 D-5 D-5
Mouldings Div. of Thompson Industries Indianapolis, Ind.	5-14-56 7-30-56	x x	x x		D-35 D-35
248					
Mueller Climatrol Div. of Worthington Corp. Milwaukee, Wis.	2- 6-56	x	x		D-35
The Murray Corp. of Amer. Detroit, Mich.	7-27-49			x	D-4
Murray-Ohio Mfg. Co. Lawrenceburg, Tenn.	4- 1-54	x	x		D-29
Natl. Engineering & Mfg. Co. Kansas City, Mo.	7- 6-53 10-18-54			x x	D-12 D-14
Natl. Steel Construction Co. Seattle, Wash.	8-23-48			x	D-1
L. R. Nelson Mfg. Co., Inc. Princeville, Ill.	7-21-55	x	x		D-32
Nesco., Inc. Milwaukee, Wisconsin	5-14-51 5-18-55	x x			D-24 D-32
Newark Stove Co. Newark, Ohio	9- 5-56			x	D-20
Norge Div. Borg-Warner Corp. Muskegon Heights, Mich.	7-11-49 12-28-55 4-24-56	 x x	 x x	x	D-4 D-35 D-35

I Licensee	II Date	III Without Air	IV Active Without Air on 10-11-56	V With Air	VI Form Used
Norris-Thermador Corp. Los Angeles, Calif.	7- 6-54	x	x		D-20
Natl. Lock Co. Rockford, Ill.	9- 1-48 11- 8-50			x x	D-1 D-5
No. Vernon Industries, Inc No. Vernon, Ind.	3-22-56 4-25-56	x x	x		D-35 D-35
249					
No. Illinois Gas Co. Belwood, Ill.	6-22-56	x	x		D-35
Novi, Equip. Co. Novi, Mich.	3- 8-49 1-13-54	x		x	D-4 D-29
Nuside Metal Prod. Div. Sharon Coal & Ice Co. Sharon, Pa.	5-23-55			x	D-16
Ny-lint Tool & Mfg. Co. Rockford, Ill.	11-25-53 5-15-51	x	x	 x	D-29 D-7
The Ohio Can & Crown Co. Massillon, Ohio	1-31-52	x			D-25
Ohio Elec. Mfg. Co. Cleveland, Ohio	4-10-53	x	x		D-27
Olin Mathieson Chem. Corp. Olin Industries, Inc. E. Alton, Ill.	1-10-51			x	D-3
C. A. Olsen Mfg. Co. Div. Westinghouse Elec. Corp. Elyria, Ohio	4-20-53 2-28-56	x	x	x	D-10 D-35
Pacific All-Fiber Drums, Inc. Alhambra, Calif.	7- 5-51	x			D-24
Pacific Iron & Steel Corp. of Los Angeles Los Angeles, Calif.	3- 3-52			x	D-7
Pacific Paint & Varnish Co. Berkeley, Calif.	6-13-55	x	x		Typed
250					
Pal Products, Inc.	10- 8-51			x	D-7
No. Ind. Steel Supply Co., Inc., Michigan City, Ind.	5-31-55			x	D-16
Palmer Mfg. Corp. Phoenix, Ariz.	10-14-53			x	D-12
Paper Mate Mfg. Co. Culver City, Calif.	5-21-56	x	x		D-35
Pemco Corp. Research Div. Baltimore, Md.	8-21-56	x	x		Typed

I Licensee	II Date	III Without Air	IV Active Without Air on 10-11-56	V With Air	VI Form Used
Penberthy Injector Co. Detroit, Mich.	12- 3-48			x	D-1
Penco Metal Prod. Div. Alan Wood Steel Co. Philadelphia, Pa.	9-12-55	x	x		D-35
Peninsular Metal Prod. Corp.	9- 6-49			x	D-4
Detroit, Mich.	7- 7-52			x	D-9
Penn Metal Corp. of Pa. Philadelphia, Pa.	1-12-53	x			D-26
Penn. Range Boiler Co. Philadelphia, Pa.	4-30-56	x	x		D-32
Peoria Consolidated Mfgrs. Inc. Peoria, Ill.	9-11-52			x	D-9
Perfection Finishing Corp. Wauseon, Ohio	12-13-54	x	x		D-31
251					
Perfection Ind. Div. Hupp Corp. Cleveland, Ohio	3-30-56			x	D-20
Philco Corp. Dexter Div. Alliance, Ohio	9-10-51	x			D-24
Pioneer Gen-E-Motor Corp. Chicago, Ill.	8-14-50			x	D-5
Pitts. Corning Corp. Port Allegheny, Pa.	7-19-55			x	Typed
Pitts. Equitable Meter Div. Rockwell Mfg. Co. Pittsburgh, Pa.	4- 6-49			x	D-4
Pitts. Plate Glass Co. Milwaukee, Wisconsin	7- 1-55	x	x		Typed
Fayette R. Plumb, Inc. Philadelphia, Pa.	1- 4-49			x	D-1
Pollak Engineering & Mfg. Corp. Arlington, N. J.	1-30-48			x	D-1
Pollock Paper Corp. Middletown, Ohio	5-31-49			x	D-4
Poloron Prod. Inc.	7- 1-53			x	D-9
New Rochelle, N. Y.	9-22-55			x	D-20
Poray, Inc.	8-20-53	x			D-29
Chicago, Ill.	10-26-53			x	D-12

252

I	II	III	IV	V	VI
Licensee	Date	Without Air	Active Without Air on 10-11-56	With Air	Form Used
Porcelain Enamel Prod. Corp. W. Concord, Mass.	10-17-52			x	D-10
Precision Castings Co. Kalamazoo, Mich.	6- 4-52			x	D-9
Pressed Steel Tank Co. Milwaukee, Wis.	12-30-48			x	D-1
	12-20-48			x	D-1
Proctor Elec. Co. Philadelphia, Pa.	1- 4-49			x	D-1
	6-19-51	x	x		D-24
	8-15-51			x	D-7
Production Enterprises Inc. Brooklyn, N. Y.	1-28-49			x	D-1
Progress Mfg. Co., Inc. Philadelphia, Pa.	9-17-53	x	x		D-29
	1-18-56	x	x		D-35
Providence Metallizing Co. Providence, R. I.	12-11-51			x	D-7
Public Service Elec. & Gas Co. Newark, N. J.	8-24-51			x	D-7
Radio Steel & Mfg. Co. Chicago, Ill.	10-26-55	x	x		D-35
	6- 8-56	x	x		D-35
The Randall Co. Cincinnati, Ohio	5-10-50			x	D-5
	5-10-50			x	D-5
	5-10-50			x	D-5
Reading Hdwe. Corp. Reading, Pa.	1-10-50			x	D-5

253

Red Lion Cabinet Co. Red Lion, Pa.	1-31-55	x	x		D-32
The Regina Corp. Rahway, N. J.	5-10-56	x	x		D-35
Remington Arms Co., Inc. Bridgeport, Conn.	4- 7-51			x	D-8
	10- 5-51			x	D-8
	9-17-52			x	D-9
	9-17-52			x	D-9
Reo Motors Inc. Lansing, Mich.	7- 8-52	x			D-26
Paul R. Repath Co. Los Angeles, Calif.	4- 3-52			x	D-7
Republic Steel Corp. Canton, Ohio	4-20-55	x	x		D-32
Reynolds Metals Co. Louisville, Ky.	5-18-48			x	D-1
	8-31-48			x	D-1
	12-30-52	x	x		D-26
Quiet-Heet Mfg. Co. Newark, N. J.	11-20-52			x	D-9

I	II	III	IV	V	VI
Licensee	Date	Without Air	Active Without Air on 10-11-56	With Air	Form Used
Rheem Mfg. Co.	3-15-51			x	D-3
South Gate, Calif.	4- 7-55	x	x		D-32
	8-30-55	x	x		D-32
	5- 7-51	x			D-24
	8-25-51	x			D-24
	7- 6-51	x			D-24
	6-21-51			x	D-7
Roberts Mfg. Co. Cleburne, Texas	6-21-51			x	D-7
254					
Rockwell Mfg. Co.	5-30-50			x	D-5
Regulator Div. Norwalk, Ohio	3-22-51			x	D-3
Ronson Art Metal Works Inc. Newark, N. J.	4-21-49			x	D-4
Royal Vacuum Cleaner Co. Cleveland, Ohio	11-17-48			x	D-1
F. C. Russell Co. Columbiana, Ohio	12-28-55	x	x		D-35
Ruud Mfg. Co. Kalamazoo, Mich.	12-30-48			x	D-1
Safety First Prod. Corp. Elmsford, N. Y.	10- 5-51	x			D-24
St. John & Co. Chicago, Ill.	7-25-52	x			D-20
Sanymetal Prod. Co. Cleveland, Ohio	3-12-52	x	x		D-25
Savage Arms Corp. Chicopee Falls, Mass.	3-12-48			x	D-1
Sawhill Tubular Prod.	6-25-53			x	D-10
Sharon, Pa.	*10-19-49			x	D-4
Schlage Lock Co. San Francisco, Calif.	1- 9-48			x	D-1
Scott Paper Co. Chester, Pa.	3- 1 54			x	D-13
Scovill Mfg. Co. Waterbury, Conn.	5- 8-56	x	x		D-35
255					
Screw Machine Prod. Co.	8-14-51			x	D-7
Portland, Oregon	4- 7-54			x	D-13
Security Plating Corp. Los Angeles, Calif.	6-22-53			x	D-12
L. J. Segli Co. Chicago, Ill.	4-16-54	x	x		D-29

I Licensee	II Date	III Without Air	IV Active Without Air on 10-11-56	V With Air	VI Form Used
Servel, Inc. Evansville, Ind.	9- 2-48			x	D-1
	9- 2-48			x	D-1
Seymour Tool & Eng. Co. Seymour, Ind.	8- 8-49			x	D-4
	6- 6-50			x	D-5
	*11-17-50	x	x		Typed
Sheller Mfg. Co. Portland, Ind.	9-18-50	x			Typed
	11-12-53	x	x		D-29
	4-22-54	x	x		D-29
Shwayder Bros. Inc. Detroit, Mich.	7-20-50			x	D-5
	6-27-52			x	D-9
	5- 6-54	x	x		D-29
	5-11-54	x	x		D-29
	5- 3-55	x	x		D-32
	5- 6-54	x	x		D-29
Simonson Metal Prod. Co. Chicago, Ill.	1-23-50			x	D-5
A. L. Smith Iron Co. Chelsea, Mass.	5- 1-49			x	D-4
	6-27-55	x	x		D-32
Smith-Corona, Inc. Groton, N. Y.	4- 9-56	x	x		D-32
H. P. Snyder Co. Little Falls, N. Y.	10-26-51			x	D-7
256					
Soreng Sampsel Time Control Inc. Spring Valley, Ill.	6-12-50			x	D-5
So. Calif. Pipe & Steel Co. Los Angeles, Calif.	2- 5-53			x	D-9
So. Calif. Gas Co. Los Angeles, Calif.	8-15-55	x	x		D-35
So. Pine Lumber Co. Diboll, Texas	10-31-55	x	x		D-35
So. States Iron Roofing Savannah, Ga.	4- 8-52	x			D-26
	11-23-49			x	D-3
Speed Queen Corp. Ripon, Wis.	11-23-49			x	D-3
	4-24-51	x	x		D-23
	4-27-56	x	x		D-35
Sparo Elec. Corp. Cleveland, Ohio	4-22-49			x	D-4
Stamping Prods. & Mfg. Co. Detroit, Mich.	4-19-48			x	D-1
Standard Tank & Seat Co. Camden, N. J.	6- 9-55	x	x		D-32
Standard Thompson Corp. Vandalia, Ohio	10-18-52	x	x		D-26
Stanley Home Prods. Inc. Westfield, Mass.	2-18-48			x	D-1

257

I	II	III	IV	V	VI
Licensee	Date	Without Air	Active Without Air on 10-11-56	With Air	Form Used
Stanley-Judd Div. Stanley Works Wallingford, Conn.	6- 7-51	x	x		D-24
Stant Mfg. Co. Connersville, Ind.	3-28-51			x	D-3
	12- 3-51			x	D-7
Steber Mfg. Co, Broadview, Ill.	10- 5-53			x	D-12
Steelcase, Inc. Grand Rapids, Mich.	4-19-48			x	D-1
Steger Prods. Mfg. Co. Steger, Ill.	11-16-48			x	D-1
Stor-All Corp. Inglewood, Calif.	8- 4-51	x			D-24
Stratton & Terstegge Co. Louisville, Ky.	6-26-53	x	x		D-29
Structo Mfg. Co. Freeport, Ill.	11-12-54	x	x		D-31
	12-16-54	x	x		D-31
Studebaker Corp. So. Bend, Ind.	9-16-48			x	D-1
	5-22-55			x	D-7
	7-15-52			x	D-9
	9-12-52			x	D-9
	10- 7-52	x			D-26
	12-21-54	x	x		D-31
	7-15-52			x	D-9
Sun Engrng. & Mfg. Co., Inc. St. Petersburg, Fla.	8- 9-55			x	D-20

258

Sunbeam Corp. Chicago, Ill.	7- 8-53	x	x		D-27
	6-29-54	x	x		D-29
	3-27-56	x	x		D-35
Sunbeam Lighting Co. Los Angeles, Calif.	5-23-55	x	x		D-32
Swanson, Inc. Monroe, Ga.	5-15-52			x	D-7
Sylvania Elec. Prods. Inc. Ann Arbor, Mich. (formerly Argus Cameras)	6- 9-55	x	x		D-32
Taylor-Wharton Iron & Steel Co. Cincinnati, Ohio	4-28-52	x	x		D-25
Ternes Steel Co. Detroit, Mich.	9-15-55	x	x		D-35
Textile Machine Works Reading, Pa.	5- 9-49			x	D-4

I	II	III	IV	V	VI
Licensee	Date	Without Air	Active Without Air on 10-11-56	With Air	Form Used
Thomas Industries, Inc.	12-20-51	x	x		D-25
Princeton, Ky.	7- 8-53	x			D-27
	2- 8-55			x	D-14
Thompson Prods. Inc.	10-11-48			x	D-1
Cleveland, Ohio	5- 9-49			x	D-4
	6-16-53			x	D-10
Thor Corporation	12-29-52	x			D-26
Chicago, Ill.					
Timken Roller Bearing Co.	11-24-52			x	D-9
Canton, Ohio					
259					
Tonka Toys, Inc.	5- 6-55	x	x		D-32
Mound, Minn.					
Troy Sunshade Co.	5- 1-52			x	D-7
Troy, Ohio					
Turnbull Mfg. Co. & Distributing Co.	3- 8-48			x	D-1
Detroit, Mich.					
Turner Brass Works	10-19-48			x	D-1
Sycamore, Ill.					
Tusco Mfg. Co.	3- 2-48			x	D-1
Gnadenhutten, Ohio	12- 2-53	x	x		D-29
Twin Cities Arsenal	8-22-50			x	D-5
Federal	3-21-51			x	D-3
Cartridge Corporation	10-29-51			x	D-7
Minneapolis, Minn.	2-26-52			x	D-7
Underwood Corp.	2-21-56	x	x		D-35
Hartford, Conn.					
Union Hdwe. Co.	9- 7-49			x	D-4
Torrington, Conn.					
Union Metal Mfg. Co.	12- 6-48			x	D-1
Canton, Ohio					
Union Parts Mfg. Co., Inc.	4-26-55	x	x		D-32
New Brunswick, New Jersey					
Union Steel Chest Corp.	7-13-49			x	D-4
LeRoy, New York.					
260					
United Spec. of Birmingham, Inc.	2-11-53	x	x		D-26
Birmingham, Ala.					
United Spec. Co.	6-14-54	x	x		D-29
Chicago, Ill.	11- 1-54			x	D-13
U. S. Defense Corp.	2-26-52			x	D-7
St. Louis Ordnance Plant	1-12-53			x	D-9
St. Louis, Mo.	9-16-53			x	D-12

I Licensee	II Date	III Without Air	IV Active Without Air on 10-11-56	V With Air	VI Form Used
U. S. Rubber Co. Mishawaka, Ind	1-23-48 5- 5-50			x x	D-1 D-5
United Steel Barrell Co. Philadelphia, Pa.	8-10-49			x	D-4
United Stove Co. Detroit, Mich.	9-21-49			x	D-1
Van Brode Milling Co., Inc. Clinton, Mass.	3-10-55			x	D-15
Vernco Corp. Columbus, Ind.	6-12-56	x	x		D-36
Vickers, Inc. Joplin, Mo.	9-10-56	x	x		D-35
Virco Mfg. Corp. Los Angeles, Calif.	12-20-50			x	D-3
Vulcan Containers Inc. Bellwood, Ill.	9-19-51	x	x		D-24
261					
E. R. Wagner Mfg. Co. Milwaukee, Wis.	1- 2-49 5-23-55	x	x	x	D-1 D-31
The Walker Mfg. Co. Racine, Wis.	1-24-49 5-11-49			x x	D-1 D-4
Walker-Mich. Div. Walker Mfg. Co. of Wis. Jackson, Mich.	10-18-54	x			D-31
Wallkill Machine Works Inc. Walden, N. Y.	6-18-48			x	D-1
Waterman-Waterbury Co. Minneapolis, Minn.	4-27-56	x	x		D-35
Waverly Prods. Inc. Kansas City, Mo.	6-15-55	x	x		D-32
The Wayne Pump Co. Salisbury, Md.	10-17-55	x	x		D-35
The Weatherhead Co. Cleveland, Ohio	6- 3-48 5- 1-49			x x	D-1 D-4
Webcor, Inc. Chicago, Ill.	6-29-54	x	x		D-29
Webster-Chicago Corp. Chicago, Ill.	12-12-50			x	D-5
Western Tool & Stamping Co. Des Moines, Iowa	3- 1-50 5-11-56	x	x	x	D-5 D-35
262					
Westinghouse Elec. Corp. Metuchen, N. J.	6-27-55 5- 7-56 5- 7-56 7- 2-56	x x x x	x x x x		D-32 D-35 D-35 D-35

I	II	III	IV	V	VI
Licensee	Date	Without Air	Active Without Air on 10-11-56	With Air	Form Used
Wheeling Steel Corp.	7-26-48			x	D-1
	4-21-50			x	D-1
Wheeling, W. Va.	8-23-55	x			D-35
Whirlpool-Seeger Corp.	6- 1-49			x	D-4
St. Paul, Minn.	6- 1-49			x	D-4
	11- 8-51	x	x		D-25
	5- 8-52	x	x		D-26
	6-17-52	x			D-26
	12- 4-52	x	x		D-26
	12- 4-52	x	x		D-26
	4-30-54	x	x		D-29
	6- 3-55	x			D-31
	6-16-55	x	x		D-32
	2-15-56	x	x		D-35
	2-15-56	x	x		D-35
	3-16-56	x	x		D-35
Wilshire Mfg. Co. Los Angeles, Calif.	5- 4-53	x	x		D-27
Walter C. Williams Co. Wilkes-Barre, Pa.	3- 6-52			x	D-7
Winchester Repeating Arms Co. New Haven, Conn.	1-12-51			x	D-3
Window Controls, Inc. Millville, N. J.	6-19-53	x	x		D-29
The Wood Shovel & Tool Co. Piqua, Ohia	11-27-53			x	D-12
The Woodlin Metal Prods. Marshall, Mich.	10-14-53	x	x		D-29
263					
Albert Wright Defense Div., Accurate Screw Machine Products Emeryville, California	9-12-51			x	D-7
Yale & Towne Mfg. Co. Stamford Division Stamford, Conn.	9-19-50			x	D-5
Yoder Mfg. Co. Los Angeles, Calif.	5-11-48			x	D-1
	8- 9-51			x	D-7
L. A. Young Spring & Wire Corporation Detroit, Mich.	8- 9-51			x	D-7
	11- 6-51	x	x		D-25
	6- 1-49			x	D-4
	9-13-50			x	D-5
	3-27-52	x			D-26
	2- 7-55	x			D-31
	8- 9-51			x	D-7

I	II	III	IV	V	VI
Licensee	Date	Without Air	Active Without Air on 10-11-56	With Air	Form Used
The Youngstown Steel Door Co. Youngstown, Ohio	1-20-48			x	D-1
Youngstown Sheet & Tube Co. Youngstown, Ohio	8-13-48			x	D-1
	3- 7-50			x	D-4
	3-29-50			x	D-4
*Interstate Metal Prod. Inc. of Ind. Michigan City, Ind.	*3-20-51	x	x		D-23
*Rowe Mfg. Co., Inc. New York, N. Y.	*7- 6-53			x	D-9
	*7- 6-53			x	D-9
*Sundstrand Machine & Tool Co. Rockford, Ill.	*3- 1-56	x	x		D-35
*Russakov Can Co. Chicago, Ill.	*6-22-50			x	D-5
264					
*John C. Virden Cleveland, Ohio	*1- 7-54	x	x		D-29
Consolidated Gen. Products Inc. Houston, Texas	12-15-48			x	D-1
*Jeavons Japanning Co. Cleveland, Ohio	*6-11-52			x	D-9
Cleveland Heater Co. Cleveland, Ohio	5-16-48			x	D-1

NOTE.

There are certain discrepancies between this Exhibit E on the one hand and, on the other hand, the answer to Interrogatory 3 and Exhibit B filed with Defendant's Answers to Plaintiff's earlier interrogatories. Such discrepancies and the explanations thereof are as follows:

1. The number of licenses granted prior to the filing of the complaint is 733 and not 732 as was inadvertently specified in the answer to Interrogatory 3 (a).

2. The licensees marked with an asterisk in column I of this exhibit were inadvertently omitted from Exhibit B.

3. The dates marked was an asterisk in column II of this exhibit were inadvertently omitted from Exhibit B.

4. Where one licensee had more than one license of the same date, such date was not repeated in Exhibit B but is repeated in this Exhibit E.

5. In Exhibit B the Goerlich license dated February 25, 1948 is also listed under A. P. Parts Corp., the parent of Goerlich. In this Exhibit E this double inclusion is avoided and only the license under A. P. Parts Corp. is listed.

6. The Rockwell Manufacturing Co., Dubois, Pa., license dated October 21, 1946 was inadvertently listed in Exhibit B and has been omitted in this Exhibit E.

265

Exhibit F.

Licenses		Patents or Patent Applications Listed	
Crosley Div. of Avco Mfg. Corp. Richmond, Indiana	3-30-49	Patents	
		2,047,525	2,425,652
		2,097,233	2,428,991
(2 agreements)		2,221,338	2,442,986
		2,247,963	2,336,953
		2,334,648	2,463,422
		2,335,790	2,465,128
		2,417,798	2,466,906
		2,421,787	
		Patent Applications	
		33,371	50,407
		452,632	516,256
		541,579	542,503
		542,558	586,582
		589,719	596,870
		619,371	626,631
		629,608	632,473
		637,692	654,830
		662,319	671,037
		689,116	695,543
		702,452	714,830
		746,527	757,732
		768,014	791,582
Crosley Div. of Avco Corp. Nashville, Tenn.	2-2-54	Patents	
		2,097,233	2,221,338
		2,247,963	2,270,341
		2,334,648	2,335,790
		2,417,798	2,421,787
		2,425,652	2,428,991
		2,442,986	2,446,953
		2,463,422	2,465,128
		2,466,906	2,466,877
		2,509,276	2,509,277
		2,509,448	2,526,763
		2,526,780	2,531,542
		2,544,806	2,546,701
		2,550,657	2,551,035
		2,553,724	2,559,225
		2,567,781	2,568,611
		2,632,716	2,636,471
		2,650,329	2,651,287
		2,655,128	2,658,009
		2,658,472	2,662,883

266

Crosley Div. of Avco Mfg. Corp. (Cont'd)			
		Patent Applications	
		452,632	541,579
		626,631	662,319
		689,116	

Licenses		Patents or Patent Applications Listed	
E. I. Dupont De Nemours & Co. Penns Grove, N. J.	1-18-49	Patents	
		2,247,963	2,270,341
		2,334,648	2,335,790
		2,359,476	2,417,798
		2,421,787	2,425,652
		2,428,991	2,442,986
		2,444,144	2,446,953
		2,463,422	2,465,128
		2,466,906	
E. I. Dupont De Nemours & Co. East Chicago, Indiana	11-4-49	Patents	
		2,247,963	2,270,341
		2,334,648	2,335,790
		2,359,476	2,417,798
		2,421,787	2,425,652
		2,428,991	2,442,986
		2,444,144	2,446,953
		2,463,422	2,465,128
		2,466,906	
Durham Mfg. Corp. Muncie, Indiana	3-27-56	Patents	
		2,247,963	2,270,341
		2,334,648	2,359,476
		2,417,798	2,421,787
		2,425,652	2,428,991
		2,442,986	2,444,144
		2,446,953	2,463,422
		2,465,128	2,466,906
		2,466,877	2,509,276
		2,509,277	2,509,448
		2,526,763	2,526,780
		2,531,542	2,554,806
		2,546,701	2,549,927
		2,550,657	2,551,035
		2,553,724	2,559,225
		2,567,781	2,568,611
		2,632,716	2,636,471
		2,640,459	2,650,329
		2,651,287	2,655,128
		2,658,009	2,658,472
		2,662,833	2,684,656
267			
Durham Mfg. Corp. (Cont'd)		Patents	
		2,685,536	2,690,730
		2,695,002	2,697,411
		2,698,814	2,708,549
		2,706,964	2,711,155
		2,718,477	2,723,646
		2,723,921	2,724,661
		2,728,606	2,728,607
		2,728,689	2,729,191
		2,730,460	2,730,461
		2,730,968	2,731,589
		2,733,171	2,736,671

Licenses		Patents or Patent Applications Listed
Gibson Refrigerator Co. Greenville, Mich. (2 agreements)	8-2-49	Patents
		2,047,525 2,097,233 2,221,338 2,247,963 2,334,648 2,335,790 2,417,798 2,421,787 2,425,652 2,428,991 2,442,986 2,446,953 2,463,422 2,465,128 2,466,906
		Patent Applications
		33,371 50,407 452,632 516,256 541,579 542,503 542,558 586,582 589,719 596,870 619,371 626,031 629,608 632,473 637,692 654,830 662,319 671,037 689,116 695,543 702,452 714,830 746,527 757,732 768,014 791,582
268		
Huffman Mfg. Co. Dayton, Ohio (2 agreements)	2-7-55	Patents
		2,247,963 2,270,341 2,334,648 2,417,798 2,421,787 2,425,652 2,428,991 2,442,986 2,446,953 2,463,422 2,465,128 2,466,906 2,486,877 2,509,276 2,509,277 2,509,448 2,526,763 2,531,542 2,544,306 2,546,701 2,550,657 2,551,035 2,553,724 2,559,225 2,567,781 2,568,611 2,632,716 2,636,471 2,650,329 2,651,287 2,655,128 2,658,472 2,658,009 2,662 833 2,684,656 2,685,536 2,690,730 2,695,002 2,697,411

Licenses		Patents or Patent Applications Listed	
Scott Paper Co. Chester, Pa.	3-1-54	Patents	
		2,247,963	2,270,341
		2,334,648	2,417,798
		2,421,787	2,425,652
		2,428,991	2,442,986
		2,446,953	2,463,422
		2,465,128	2,486,906
		2,466,877	2,509,276
		2,509,277	2,509,448
		2,526,763	2,531,542
		2,544,806	2,546,701
		2,550,657	2,551,035
		2,553,724	2,559,225
		2,567,781	2,632,716
		2,636,471	2,650,320
		2,655,128	2,662,833
Stant Mfg. Co. Connersville, Ind.	12-3-51	Patents	
		2,247,963	2,270,341
		2,334,648	2,417,798
		2,421,787	2,425,652
		2,428,991	2,442,986
		2,446,953	2,463,422
		2,465,128	2,486,877
		2,509,276	2,509,277
		2,609,448	2,526,763
		2,531,542	2,544,806
		2,546,701	2,550,657
		2,551,035	2,553,724
		2,559,225	2,567,781

269 **Exhibit G.**

Record of Shipment

Ransburg Electro-Coating Corp. 5963
1234 Barth Avenue
Indianapolis 7, Indiana 5964

To be Shipped ppd. Via Motor Fr. Date 6-19-56

Order No. A56068

Ship to: Union Parts Mfg. Co.
U. S. Highway 1 at Black Horse Rd.
New Brunswick, N. J. Shipment completed.....

	Quant.	Part No.	Description	Price	Extension
√	1	212F	Voltage Spply #212F235 #H2477		
√	2	ML44E	Rectifier Tubes #H3106		Memo
√	1	136	Control Panel consisting of		#3
		1-112.	Spark guard control panel		
		1-114	Spark Guard Relay Panel		
		1-116	Voltage Control Panel		
		1-208	Pump & Rotator Controller Pump Controller		
√	1	RM-3586	Bypass Switch		
√	1	118	Constant Voltage Transformer		
√	1	230	Push Button Pilot Light Station		
√	2	135	Explosion Proof Switches		
√	1	133	Alarm Bell		
√	100′	RM-3	Shielded Cable		
√	75′	RM-36	3ø-High Voltage Wire		
√	1	RM-10	Drum, Transformer Oil		
√	10′	Rm-5	$\frac{1}{2} \times \frac{1}{4}$ Fluid Hose		
√	30′	RM-35	$\frac{3}{8} \times \frac{1}{8}$ Fluid Hose		
√	6′	RM-114	Polyethylene Tubing		
√	4	RM-414	Hose Fittings		
√	4	105/96	Hose Fittings		

270

√	1	143	Pump Unit #143265 w/1-105/a/Fluid Pump
√	1	143-1249	Drive Cover
√	1	143-1250	Pump Cover
√	1	138-300	Support Assy./1613 Insul. Tube w/1336-7 Trunions w/110-28
√	1	162-C	Disc Rotator Motor
√	1	1936-25	Upfeed Disc 25"
√	1	1709	Upfeed Tube
√	1	138-1119	Pedestal
√	1	128-1747	Terminal Puller
√	1	128-14	Snap Ring Pliers
√	1	128-15	Snap Ring Pliers
√	1	128-1745	Tube Puller

271

Spare Parts List.

√	1	MI.44E	Rectifier Tubes H6440
√	1	112-27	6x5 Rectifier Tube
√	1	112-30	2050 Thyratron Tube
√	1	105/94	Fluid Pump
√	1	162-C	Disc Rotator Motor
√	1	1936-25	25" Upfeed Disc
√	1	112-25	2 ampere Fuse

272 Exhibit H.

Name of Licensee	Date of Agreement
Aero Metalcraft Company (formerly Aero Muffler Corp.) Rockleigh, N. J.	July 13, 1945
Ainsworth Manufacturing Corporation Detroit, Michigan	September 5, 1945
Ainsworth Manufacturing Corporation Detroit, Michigan	July 14, 1947
Ainsworth Manufacturing Corporation Detroit, Michigan	July 14, 1947
All Lite Manufacturing Company Chicago, Illinois	November 2, 1945
Alside, Incorporated Akron, Ohio	July 27, 1947
American Cabinet Hardware Corp. Rockford, Illinois	May 2, 1947
American Radiator & Standard Sanitary Corporation Buffalo, New York	July 23, 1946
Arnold, Schwinn & Company Chicago, Illinois	October 2, 1947
Atlas Novelty Company Chicago, Illinois	August 8, 1945
Auto Specialty Manufacturing Company St. Joseph, Michigan	October 9, 1945
Auto Specialty Manufacturing Company Hartford, Michigan	October 9, 1945
Auto Specialty Manufacturing Company St. Joseph, Michigan	October 21, 1946

273

Balcrank, Inc. Cincinnati, Ohio	April 14, 1947
Barlow & Seelig Manufacturing Co. Ripon, Wisconsin	April 30, 1947
Barlow & Seelig Manufacturing Co. Ripon, Wisconsin	April 30, 1947
Bastian Blessing Company Chicago, Illinois	April 17, 1946
Blake Manufacturing Company Clinton, Massachusetts	October 5, 1945
The Brearley Company Rockford, Illinois	November 27, 1946
Burroughs Adding Machine Company Detroit, Michigan	December 19, 1947
Burroughs Adding Machine Company Detroit, Michigan	December 19, 1947
Burroughs Adding Machine Company Detroit, Michigan	December 19, 1947

Name of Licensee	Date of Agreement
California Parkerising Company Oakland, California	October 2, 1946
Carey-McFall Company Philadelphia, Pa.	June 14, 1946
Carey-McFall Company Montoursville, Pa.	September 4, 1946
Clarin Manufacturing Company Chicago, Illinois	February 26, 1946
274	
Clyde Porcelain Steel Corp. Clyde, Ohio	November 6, 1945
Clyde Porcelain Steel Corp. Clyde, Ohio	June 20, 1947
Columbia Mills, Inc. Saginaw, Michigan	November 25, 1946
Commonwealth Edison Chicago, Illinois	August 23, 1944
Consolidated Venetian Blind Co., Inc. Houston, Texas	November 27, 1945
Continental Scale Corp. Chicago, Illinois	October 3, 1947
Corona Corporation Jersey City, New Jersey	June 24, 1947
Day & Night Manufacturing Company Monrovia, California	July 30, 1946
Delco Products Division of GMC Dayton, Ohio	March 28, 1946
Delta Electric Company Marion, Indiana	September 18, 1946
Detroit Moulding Division of L. A. Young Spring & Wire Corp. Detroit, Michigan	October 30, 1945
Detroit Moulding Division of L. A. Young Spring & Wire Corp. Detroit, Michigan	May 7, 1947
275	
R. E. Dietz Manufacturing Company Syracuse, New York	September 14, 1945
J. E. Donaldson Manufacturing Co. North Kansas City, Missouri	August 27, 1946
Dusing & Hunt, Inc. Buffalo, New York	August 2, 1945
E. A. Laboratories, Inc. Brooklyn, New York	April 4, 1947
E. A. Laboratories, Inc. Brooklyn, New York	October 20, 1947
Eagle Manufacturing Company Wellsburg, West Virginia	April 23, 1947

Name of Licensee	Date of Agreement
Eastern Venetian Blind Company Baltimore, Maryland	March 9, 1946
Eastern Venetian Blind Company Baltimore, Maryland	December 11, 1947
Embury Manufacturing Company Warsaw, New York	November 16, 1945
Enameled Steel Sign Company Chicago, Illinois	February 24, 1945
Enameled Steel Sign Company Chicago, Illinois	May 10, 1946
Enameled Steel Sign Company Chicago, Illinois	June 2, 1947
Fisher Body-Ternstedt Division Detroit, Michigan	March 12, 1946
276	
Fisher Body-Ternstedt Division Detroit, Michigan	March 12, 1946
The Frick-Gallagher Manufacturing Co. Wellston, Ohio	September 5, 1947
Gabriel Company Cleveland, Ohio	January 16, 1946
Gate-Way, Inc. Los Angeles, California	June 6, 1947
General Electric Company Owensboro, Ky.	August 31, 1945
Geuder, Paeshke & Frey Company Lebanon, Indiana	July 18, 1947
Gabriel Company Cleveland, Ohio	September 7, 1945
Edwin F. Guth Company St. Louis, Missouri	September 22, 1947
Hamilton Manufacturing Company Columbus, Indiana	October 21, 1947
William H. Harman Corporation Wilmington, Delaware	July 23, 1947
William H. Harman Corporation Wilmington, Delaware	July 23, 1947
William H. Harman Corporation Wilmington, Delaware	July 23, 1947
M. M. Hedges Manufacturing Co. Chattanooga, Tennessee	September 19, 1946
277	
Hofmann Broom Works, Inc. Sinking Springs, Pa.	May 27, 1947
The Hoover Company No. Canton, Ohio	August 5, 1947
Hotstream Heater Company Cleveland, Ohio	November 1, 1947

Name of Licensee	Date of Agreement
Hotstream Heater Company Cleveland, Ohio	August 5, 1947
Houde Engineering Division of Houdaille-Hershey Corp. Buffalo, New York	June 7, 1947
Industrial Wire Cloth Products Wayne, Michigan	September 10, 1946
Inland Manufacturing Division General Motors Corporation Dayton, Ohio	August 9, 1945
International Business Machines Corp. Endicott, New York	January 5, 1945
Iron Fireman Manufacturing Company Cleveland, Ohio	November 28, 1945
The Ironrite Ironer Company Mt. Clemens, Michigan	November 3, 1947
The Ironrite Ironer Company Mt. Clemens, Michigan	November 3, 1947
Jamestown Metal Corporation Jamestown, New York	October 18, 1945
278	
The Japan Company Cleveland, Ohio	May 24, 1944
Kaywood Corporation Benton Harbor, Michigan	October 1, 1945
Keeler Brass Company Grand Rapids, Michigan	August 9, 1944
Frank I. King Los Angeles, California	November 17, 1945
Kingston-Conley Electric Company North Plainfield, N. J.	July 25, 1946
Kingston-Conley Electric Company North Plainfield, N. J.	June 30, 1947
Kingston-Conley Electric Company North Plainfield, N. J.	June 30, 1947
Kirsch Company Sturgis, Michigan	November 9, 1945
Kirsch Company Sturgis, Michigan	October 20, 1945
Kotler & Kopit, Inc. Pawtucket, Rhode Island	June 1, 1946
Landers Frary & Clark Company New Britain, Connecticut	August 7, 1944
Lennox Furnace Co. Machine & Tool Div. Lima, Ohio	September 30, 1947

279

Name of Licensee	Date of Agreement
Lennox Furnace Co. Machine & Tool Div. Lima, Ohio	September 30, 1947
Lennox Metal Mfg. Co., Inc. Maspeth, Long Island, N. Y.	October 4, 1947
Linmar Products Corporation Chicago, Illinois	December 30, 1946
Litecontrol Corporation Watertown, Mass.	March 25, 1947
Lloyd Manufacturing Company Menominee, Michigan	July 30, 1946
Macomber, Inc. Canton, Ohio	February 12, 1947
Manufacturers Enameling Company (formerly Auto Marine Mfg. Co.) Toledo, Ohio	September 27, 1945
Martin-Parry Corporation York, Pa.	July 1, 1946
Martin-Parry Corporation York, Pa.	July 1, 1946
Merriam Manufacturing Company Durham, Connecticut	January 18, 1945
Metal Office Furniture Co. Grand Rapids, Michigan	August 28, 1947
Miller Company Meriden, Connecticut	November 17, 1945

280-1

Miller Company Meriden, Connecticut	November 17, 1945
Mimar Products, Inc. El Monte, California	February 25, 1947
The Miro-Flex Company, Inc. Wichita, Kansas	March 18, 1947
Mission Appliance Corporation Los Angeles, California	May 21, 1946
Modern Venetian Blind New Bedford, Mass.	May 21, 1946
Motor Products Corporation Detroit, Michigan	May 16, 1947
Motor Products Corporation Detroit, Michigan	August 21, 1945
Motor Products Corporation Detroit, Michigan	August 15, 1944
Na-Ber Manufacturing Company Dallas, Texas	February 12, 1947
National Gas Equip. Company, Inc. (formerly Dallas Engineering Co.) Terrell, Texas	November 6, 1946

Name of Licensee	Date of Agreement
National Lock Company Rockford, Illinois	November 8, 1946
National Metal Products Company Carrollton, Texas	September 10, 1946
National Production Company Detroit, Michigan	July 19, 1945
282	
National Steel Construction Co. Seattle, Washington	November 7, 1947
National Tube Company Pittsburgh, Pa.	November 30, 1946
Norge Division of Borg-Warner Corp. Detroit, Michigan	July 24, 1945
Norquist Products, Inc. Jamestown, New York	July 1, 1947
Norris Stamping & Manufacturing Co. Los Angeles, California	September 10, 1947
Norris Stamping & Manufacturing Co. Los Angeles, California	September 10, 1947
Ohio Can & Crown Company Canton, Ohio	April 3, 1946
Peninsular Metal Products Corp. Detroit, Michigan	July 26, 1945
Peninsular Metal Products Corp. Detroit, Michigan	October 30, 1945
Peninsular Metal Products Corp. Detroit, Michigan	October 30, 1945
Peninsular Metal Products Corp. Detroit, Michigan	November 6, 1947
Peninsular Metal Products Corp. Detroit, Michigan	November 6, 1947
283	
Pennsylvania Range Boiler Company Philadelphia, Pa.	October 16, 1945
Pittsburgh Du Bois Company Rockwell Mfg. Co. Dubois, Pa.	October 21, 1946
Portland Manufacturing Co. Portland, Michigan	September 24, 1946
Progress Manufacturing Co., Inc. Philadelphia, Pa.	February 12, 1946
Radio Corporation of America Harrison, New Jersey	May 21, 1945
Radio Steel & Manufacturing Co. Chicago, Illinois	March 8, 1947
Reading Hardware Corporation Reading, Pa.	July 21, 1945
Rheem Manufacturing Company Sparrows Point, Md.	June 2, 1947

Name of Licensee	Date of Agreement
Rival Manufacturing Company Kansas City, Mo.	July 12, 1946
Russakov Can Company Chicago, Illinois	November 17, 1944
Security Manufacturing Company Kansas City, Mo.	July 11, 1947
Sheller Manufacturing Corporation Portland, Indiana	July 24, 1946
284	
A. L. Smith Iron Company Chelsea, Mass.	April 11, 1946
Steel Cooperage Company Detroit, Michigan	December 10, 1946
The Steelcraft Manufacturing Co. Cincinnati, Ohio	September 11, 1946
Steelcraft Manufacturing Co. Rossmoyne, Ohio	December 12, 1947
Stratton & Terstegge Company Manufacturing Division Louisville, Ky.	May 24, 1946
Sunbeau Heater Company Los Angeles, California	December 2, 1946
Sure-Heat Stove Company Dallas, Texas	November 1, 1946
Thompson Products, Inc. Cleveland, Ohio	February 28, 1946
Torrington Manufacturing Co. Torrington, Conn.	July 21, 1947
The Turner Brass Works Sycamore, Illinois	October 19, 1945
Union Steel Chest Corporation LeRoy, New York	April 3, 1946
U. S. Rubber Company Mishawaka, Indiana	April 26, 1946
285	
United Steel Barrel Company Philadelphia, Pa.	June 11, 1945
V-M Corporation Benton Harbor, Michigan	August 14, 1945
Venetian Manufacturing Company Baltimore, Md.	March 20, 1946
John C. Virden Company Cleveland, Ohio	July 7, 1945
E. R. Wagner Manufacturing Co. Milwaukee, Wisconsin	January 2, 1946
Waldes Koh-I-Noor, Inc. Long Island, New York	December 24, 1946

Name of Licensee	Date of Agreement
The Walker Manufacturing Company Racine, Wisconsin	May 11, 1945
The Walker Manufacturing Company Racine, Wisconsin	January 24, 1944
Waterloo Valve Spring Compressor Co. Waterloo, Iowa	October 2, 1946
The Weatherhead Company Cleveland, Ohio	May 1, 1946
The Weatherhead Company Houma, Louisiana	June 20, 1947
The Wheeler Insulated Wire Co., Inc. Bridgeport, Connecticut	February 13, 1947
Wheeling Steel Corporation Wheeling, West Va.	August 2, 1946
286	
Wheeling Steel Corporation Wheeling, West Virginia	August 2, 1946
Wheeling Steel Corporation Wheeling, West Virginia	February 17, 1944
Wheeling Steel Corporation Yorkville, Ohio	October 27, 1945
The White Motor Company Cleveland, Ohio	May 6, 1946
The White Motor Company Cleveland, Ohio	May 6, 1946
The Youngstown Sheet & Tube Co. Youngstown, Ohio	March 18, 1947

All of the foregoing are licenses granted by the Harper J. Ransburg Company and assigned to Ransburg Electro-Coating Corporation.

378 **Exhibit K.**

Identity of Licensee	Date	Terms
Westeel Products Ltd. Toronto, Canada	3/6/57	D-36
Motor Products Corp. Walkerville, Ont., Canada	8/20/47	Typed, attached as Exhibit K-1
	3/29/48	D-1
Office Specialty Mfg. Co., Ltd. Newmarket, Ont., Canada	1/ 7/50	D-5
Auto Specialties Mfg. Co. (Canada) Ltd. Windsor, Ont., Canada	9/11/56	D-36
Canadian Gen. Electric Co., Ltd. Barrie, Ont., Canada	3/13/58	D-27
Canadian Gen. Electric Co. Montreal, P. Q., Canada	5/29/56	D-35
Cooey Metal Prods. Ltd. Brighton, Ont., Canada	4/26/55	D-32
Curtis Lighting of Canada Leaside, Toronto, Canada	6/ 1/56	D-35
Dominion Foundries & Steel Ltd. Hamilton, Ont., Canada	3/15/54	D-13
Eastern Steel Prods. Ltd. Toronto, Canada	1/27/55	D-32
Electrolier Mfg. Co. Ltd. Montreal 10, Canada	5/21/57	D-36
Electrolux (Canada) Ltd. Montreal, P. Q., Canada	1/13/58	D-36
Fairgrieve & Son Toronto, Ont., Canada	8/31/48	Typed, attached as Exhibit K-2
Machine Prods. Corp. Montreal, Quebec, Canada	8/ 5/57	D-36
Outboard Marine Corp. of Canada, Ltd. Peterborough, Ont., Canada	9/ 6/57	D-36
Rest Glow Mfg. Co. Ltd. Town of Mt. Royal Montreal, P. Q., Canada	7/24/56	D-36
Sunbeam Corp. (Canada) Ltd. Toronto 18, Canada	4/26/55	D-32

379

Steel Co. of Canada Ltd. Hamilton, Ontario, Canada	8/22/47	Typed, attached as Exhibit K-3
Federal Pacific Mfg. Co. Ltd. Toronto, Ont., Canada	2/24/58	D-36

740 **Exhibit M.**

List of Defendant's agreements presently known to Defendant under which articles were painted for the United States government, showing name of customer, agreement number, and articles to be painted under agreement. Supplied in answer to Plaintiff's Interrogatory No. 190 (b) and (c).

Customer	Agreement No.	Articles
Baxter Metal Products, Inc.	4040	Army and Navy Lockers
Interstate Metal Products, Inc.	4027	Metal Chairs for Army Air Forces
Butler Manufacturing Co.	3988	Roofing, Siding, etc. for Navy Utility Steel Buildings
Chromcraft Div., American Fixtures & Mfg. Co.	4107	Metal Chairs for Army and Air Forces
Aluminum Goods Mfg. Co.	4202	3" 50-caliber Cartridge Tanks for Navy
C. A. Dunham Mfg. Co.	4064	155-mm High Explosive Shells
Industrial Lamp Corp.	4364	Military Black-Out Lamps
Van Brody Milling, Inc.	5681	Metal Food Packs
Thomas Industries, Inc.	5585	Shell Cases
U. S. Defense Corp.	6469 4527	
	4648 5107	Ammunition Packing Cans
Twin Cities Arsenal	3843 4026	
	4361 4526	Ammunition Packing Cans
Screw Machine Products	4245	Projectiles
	5267	Grenades
Russakov Can Co.	3787	Blitz Cans
	4060 4322	Ammunition Packing Cans
Olin-Mathieson Chemical Corp.	3929	Ammunition Packing Cans
	3947	Cartridge Cans

REQUEST FOR ADMISSIONS AND ANSWERS.

1

Request for Admissions	Answer
1. That Defendant does not sell electrostatic spray coating systems or components thereof in the United States.	1. Admitted.
2. That Defendant has never licensed for commercial use any airless electrostatic spray coating system employing non-rotating applicator head identical or substantially identical to the applicator heads shown in the drawings of the Starkey and Ransburg Patent No. 2,685,536 in suit.	2. Admitted.
3. That the first license granted by Defendant on an airless electrostatic spray coating system was granted on March 21, 1949.	3. Admitted.
5. That the Defendant has never issued a license in the United States for the manufacture of electrostatic spray coating systems by such licensee,	5. Admitted.
7. That electrical power packs, containers for liquid or paint, electrical wiring, and conduits for conveying liquid are available on the open market.	7. Admitted, except that no electrical power packs then available on the open market were deemed by Defendant's predecessor free from danger when used for electrostatic spray painting.
8. That the airless electrostatic coating system used by Plaintiff, the use of which is alleged to infringe the patent in suit comprises at least these elements: (1) an electrical power pack (2) a liquid emitter or sprayer of the type shown in Plaintiff's drawing SK-661 (Exhibit E) (3) a container for supplying coating liquid to be applied (4) electrical wiring connecting the emitter to the power pack for energizing the emitter and (5) conduit for directing liquid from the container to the emitter.	8. Admitted.
9. That the acts of Plaintiff alleged to infringe are (1) the use of the emitter or sprayer shown in Plaintiff's drawing SK-661 (Exhibit E) for airless electrostatic coating in Plaintiff's plant and	9. (1) Admitted.
(2) the Plaintiff's offer of sale of airless electrostatic spray coating systems to Ford Motor Company.	(2) Denied.

2

Request for Admissions	Answer
10. That Defendant notified Plaintiff that Plaintiff should not sell its emitter or sprayer shown in Plaintiff's Drawing SK-661 (Exhibit E) for electrostatic coating to any party who was not a licensee of Defendant.	10. Admitted.
11. That Defendant is presently charging with patent infringement each known supplier who has offered airless electrostatic spray coating systems for sale in the United States.	11. Other than the instant case, Defendant has charged with patent infringement one supplier in the United States of airless electrostatic spray coating systems, and knows of no other such supplier; otherwise denied.
13. That the Defendant has refused and still refuses to license the Plaintiff to supply Plaintiff's airless electrostatic spray coating emitter of the type shown in Plaintiff's Drawing SK-661 (Exhibit E) to the trade unless Defendant receives fees based at least in part upon the amount of coating material sprayed by such emitter or sprayer.	13. Defendant admits that it has refused to license the Plaintiff to supply its emitter SK-661 for electrostatic spray painting to persons other than Defendant's licensees, but denies the balance of request #13.
14. That an initial act of conception in connection with the subject matter of the Starkey and Ransburg patent in suit was the observation by Starkey of the behavior of a wet paint brush in an electrostatic field.	14. Admitted.
15. That prior to this suit Defendant's personnel in successfully leasing Defendant's airless electrostatic spray coating system, represented to the customer in writing, as follows: "For your information, our equipment is not available on the open market and whereas you could fabricate this equipment it would cost thousands of dollars to manufacture and you would not be guaranteed its functioning properly."	15. Defendant admits that one of Defendant's sales personnel wrote a letter on March 23, 1954, containing the quoted statement; otherwise denied.

Request for Admissions	Answer
16. That Defendant's personnel have failed to advise all prospective licensees of Defendant for airless electrostatic spray coating systems that licenses might be available under which such licensees would not be obligated to take equipment from Defendant.	16. Defendant admits that prior to the middle of 1953, some prospective licensees might not have been advised that licenses were available without equipment, but Defendant believes that since that time all prospective licensees have in some manner been advised by Defendant that licenses were available from Defendant without Defendant's equipment; otherwise denied.
17. That defendant has issued in excess of three hundred licenses in the field of airless electrostatic spray coating, and in each instance, the license provided for Defendant leasing equipment under each such license.	17. Admitted.
18. That as of the date of the filing of the Complaint in this cause, Defendant had licenses outstanding containing the following provision: "Future Inventions: User agrees that in the event User acquires, from any source, any inventions, improvements, or letters patent, domestic or foreign, relating to methods and/or apparatus involving the electrostatic atomization of liquids, Ransburg shall have with respect to coating apparatus and methods employing said inventions, improvements, and the subject matter of said letters patent, a royalty-free, non-exclusive, assignable license, with right to sub-license, such license to be irrevocable except upon voluntary surrender by Ransburg. Patents subject to Ransburg's rights under this paragraph shall include only patents acquired by User during the term of this agreement, patents acquired by User within two years following termination of this agreement, and patents whenever acquired by User which cover inventions and improvements made within the term of this agreement or within two years following its termination."	18. Admitted.
19. That as of the date of the filing of the Complaint in this cause, Defendant had licenses outstanding containing the following provision: "Future Inventions: User agrees that in the event User acquires from any source, any inventions, improvements, or letters patent,	19. Admitted.

4

Request for Admissions	Answer
19. (cont'd) domestic or foreign, comprehending subject matter usable in any way in connection with methods or apparatus for the electrostatic atomization of liquids or for coating with electrostatically atomized liquids, Ransburg shall have with respect to coating methods and apparatus employing said inventions, improvements, and the subject matter of said letters patent, a royalty-free non-exclusive, assignable license, with right to sub-license, such license to be irrevocable except upon voluntary surrender by Ransburg. Patents subject to Ransburg's rights under this paragraph shall include only patents acquired by User during the term of this agreement, patents acquired by User within two years following termination of this agreement, and patents whenever acquired by User which cover inventions and improvements made within the term of this agreement or within two years following its termination."	19. (cont'd)
21. That in response to a canvass of Defendant's licensees conducted by Defendant on or about May 27, 1953 and July 15, 1953, purportedly offering such licensees an opportunity to return Defendant's equipment and operate under a license wherein Defendant would not supply equipment, at least one such licensee termed the purported offer "ridiculous."	21. Defendant admits that between May and July, 1953, it notified all of its then licensees in writing that licenses were available from Ransburg without Ransburg equipment, and that a sales representative of Ransburg reported that one licensee had characterized the offer as a "ridiculous proposition": otherwise denied.
22. That Defendant's distributor in licensing efforts for the Defendant, reported on such efforts as follows: "Emphasis was placed on the fact that even if the patents were worthless, that we could get the system into profitable operation enough quicker than any other way of handling, that this differential speed was worth the price we were charging, i.e. at $1,000,000, saving per year, 3 month delay would be worth $250,000."	22. Defendant admits that the quoted statement is an excerpt from a communication dated March 11, 1949 from a distributor relating to the No. 1 Compressed Air Atomized Spray Process: otherwise denied.

5

Request for Admissions	Answer
25. Does the defendant admit that in connection with its earlier application, Serial Number 556,390, from which its process Patent No. 2,685,536 issued, no requirement for division as between process and apparatus claims was ever made by the Patent Office?	25 Yes.
26. Does the defendant admit that following the decision of the Patent Office Board of Appeals dated December 18, 1953, in connection with the earlier application Serial Number 556,390 from which process patent No. 2,685,536 issued, it cancelled all of its apparatus claims from said application on January 27, 1954, without the Patent Office having made any requirement for division?	26. Yes.
27. Does the defendant admit that Claim 4 of its apparatus patent No. 2,794,417 (which is the only claim of that patent specifically identified in the Counterclaim as being infringed) is based on the same disclosure of an airless electrostatic sprayer apparatus as were the apparatus claims 63, 65, 87, 95 that were cancelled from the earlier application, Serial Number 556,390?	27. Yes, to the extent that "same disclosure" means the specification and drawings considered as a whole. However, said cancelled claims 63, 65, 87 and 95 cover portions of such disclosure which are outside the scope of claim 4 of patent No. 2,794,417.
28. Between January 27, 1954 and June 4, 1954, does the defendant admit that it did not have pending in the Patent Office any claims on apparatus for airless electrostatic sprayer apparatus based on the disclosures of either of its process or apparatus patents Nos. 2,685,536 and 2,794,417 in suit?	28. Yes.
29. Does the defendant admit that as between January 27, 1954, and June 4, 1954, it did not have pending in the United States Patent Office any apparatus claims on an electrostatic airless sprayer apparatus	29.
(a) of a scope comparable to that of Claim 4 of its apparatus patent No. 2,794,417, or	(a) Yes.
(b) of a scope which it considered applicable to plaintiff's SK-661 emitter apparatus?	(b) No.

6

Request for Admissions	Answer
30. Does the defendant admit that it has never commercialized by sale or lease any electrostatic sprayer apparatus of the structure shown in any one of the figures of either its earlier process patent 2,685,536 or of its later apparatus patent No. 2,794,417?	30. Yes.
31. Does the defendant admit that the following statement, "as illustrated in the drawings the needles are sufficiently close together as to cause the coating material to bridge the spaces therebetween", was added by Amendment "C", filed August 23, 1956, to the original text of the application of its apparatus patent No. 2,794,417?	31. Yes.
32. Does the defendant admit that prior to August 23, 1956, neither the specification of the application of its process patent No. 2,685,536 nor the specification of the application of its apparatus patent No. 2,794,417, during their pendency in the Patent Office, described needles or points as being "sufficiently close as to cause coating material to bridge the spaces therebetween"?	32. No, but defendant admits that prior to August 21, 1956, the specification of the application of neither its patent No. 2,685,536 nor its patent No. 2,794,417 contained the specific words, "sufficiently close as to cause coating material to bridge the spaces therebetween".
33. Does the defendant admit that at the time it and its counsel prepare and file Amendment "C", filed August 23, 1956, in its application from which apparatus patent 2,794,417 issued on June 4, 1957, said counsel prepared such amendment with knowledge of plaintiff's airless electrostatic apparatus submitted to defendant in a letter dated July 23, 1956, identified in the Complaint hereof?	33. Defendant denies that at the time of the original preparation of Claim 18 of Amendment "C" its counsel had knowledge of plaintiff's airless electrostatic apparatus submitted to defendant in a letter dated July 25, 1956, identified in the complaint herein, but admits that at the time of the completion of the preparation and filing of said amendment, said counsel had knowledge of the drawing of plaintiff's sprayer designated SK-661, which had been transmitted to defendant by the plaintiff in said letter.
34. Does the defendant admit that as far as its charges of infringement in this case are concerned, none of plaintiff's spraying devices charged to be infringements employ any spaced mechanical elements in the tangible form of either needles or points?	34. Yes.

7

Request for Admissions	Answer
36. Does the defendant admit that in the case of each of the applicators or emitter heads illustrated in the drawings of both of its two patents in suit, there is provided in every instance mechanical structure either in the form of edges of spaced openings, spaced needle points or spaced strands of wire, for defining spaces through which droplets of liquid material emerge from the head?	36. No, however defendant admits that in every instance mechanical structure is provided for defining spaces through which liquid material emerges.
37. Does the defendant admit that it has never commercialized an electrostatic airless spraying apparatus with an applicator or emitter using (a) spaced needles, (b) spaced wires, or (c) mechanically spaced droplet holes?	37. Yes.
38. Does the defendant admit that (a) during the period of five (5) years preceding this suit it, in connection with its licensing program, charged initial fees of $5,000.00 to $40,000.00 and (b)	38. (a) Yes. (b) .....
41. Does the defendant admit that prior to the issuance of its process patent No. 2,685,536, as far as is known to defendant, it was the sole manufacturer and supplier in this country of airless electrostatic spraying systems?	41. Yes.
42. Does the defendant admit that after the issuance of its process patent 2,685,536, as far as defendant knows, it continued to be the sole manufacturer and supplier of airless electrostatic spraying systems with the exception of the system made by the plaintiff here in suit and the electrostatic spray coating system charged to be an infringement of said patent in the pending patent infringement and antitrust suit in Baltimore entitled Ransburg Electro-Coating Corp. *vs.* Proctor Electric Co., Inc. and Ionic Electrostatic Corp., C. A. 10181?	42. Yes.

8

Request for Admissions	Answer
44. Does the defendant admit that in its licensing of airless electrostatic spraying systems, it in each instance prepared the license and lease and submitted them to the licensee?	44. Yes.
45. Does the defendant admit that in the case of its printed licensing and leasing forms previously identified herein, such forms were printed by or for the defendant (a) and submitted generally to prospective licensees, and (b) not for or on behalf of any particular licensee?	45. Yes.
46. Does the defendant admit that it is presently attempting to enjoin the manufacture and sale of all competitive airless electrostatic spraying systems on the market known to defendant?	46. Yes.
47. Does the defendant admit that it commenced the suit in Baltimore, Maryland, entitled Ransburg Electro-Coating Corp. *vs.* Proctor Electric Co., Inc. and Ionic Electrostatic Corp., charging infringement of the process patent 2,685,536, after it had acquired knowledge of Zeleny's articles, of record herein?	47. Yes.
48. Does the defendant admit that as a part of its licensing program in connection with airless electrostatic spraying systems (a) it did, as exemplified by certain printed forms of licenses, require licensees to transfer to defendant patent rights relating to such systems and (b) that licenses with such conditions are still in force and effect?	48. (a) and (b) No, but Defendant admits that some of its agreement forms contained a provision whereby the licensee agreed to grant defendant a royalty-free non-exclusive license, with right to sub-license, respecting airless electrostatic spray coating, some of which agreements are still in effect.
51. Does the defendant admit that as far as it knows there are no second-hand dealers in the United States handling electrostatic airless spray coating systems?	51. Yes.
52. Does the defendant admit that as far as it knows there is no servicing organization in the United States outside of itself for servicing its so-called No. 2 airless electrostatic coating system?	52. Yes.

Request for Admissions	Answer
53. Does the defendant admit that under its licensing and leasing agreements with its existing licensees, it is obligated to furnish replacement parts on equipment that it furnishes such licensee?	53. Yes, subject to conditions specified in the agreement.
54. Does the defendant admit that in connection with its licensing and leasing program on airless electrostatic spraying systems it usually, as a part of the fees received by it, for the most part supplies the majority of replacement parts on the equipment furnished by the defendant to its licensees?	54. Yes.
56. Does the defendant admit that in granting licenses, licensees have not only been given the benefit of operating under the patents taken out by the defendant, but also under other patent rights acquired from third parties?	56. Yes, in such cases as such rights were applicable.
57. Does the defendant admit that in its licensing program on electrostatic spraying systems it has for the most part used printed forms of licenses which do not single out any particular patents, by number, of those in the portfolio of the defendant?	57. Yes.
58. Does the defendant admit that in no instance where it has acquired patent rights from other parties has any of such parties gone into competition with the defendant in the electrostatic liquid spraying field?	58. Yes.
9	
60. For the purpose of this law suit, does the defendant admit (as testified to by Dr. Emery P. Miller, R. 42 to 44)	60.
(a) that airless electrostatic detearing was used commercially before the making of the alleged Starkey et al invention of patent 2,685,536 in suit and	(a) Yes.
(b)	(b) .....
61. For the purpose of this law suit does the defendant admit that	61.

Request for Admissions	Answer
(a) airless electrostatic detearing was in public or commercial use more than one year prior to the original filing date, September 29, 1944, of the Starkey et al letters patent in suit, and	(a) Yes.
(b) that according to such detearing excess liquid on the previously coated given object was atomized, dispersed and deposited in liquid form on another object such as a grid?	(b) No, but incidental to the removal of excess material from coated articles by electrostatic detearing, on occasion some atomization, dispersion, and deposition of the material upon the apparatus and floor occurred sporadically and momentarily.
62. For the purpose of this law suit and in connection with defendant's previous admission 14 as to its use of a wet paint brush, does the defendant admit that when the paint brush was disposed in an electrostatic field, it emitted liquid paint which was atomized, dispersed and deposited on an article such as paper?	62. No. However, defendant admits that when the paint brush was effectively arranged as one terminus of the electrostatic field and the article was effectively arranged as the other terminus of the field, liquid paint was atomized from the brush and the atomized particles were dispersed and deposited on the article.
63. Does the defendant admit with regard to its original paper exhibit (PX-B) used in connection with the initial paint brush inception of the alleged Starkey et al invention, the paint that was applied to the paper was electrostatically atomized, dispersed and deposited on the paper?	63. Yes.
64. Does the defendant admit as to both of its two Starkey et al patents in suit, 2,695,596 and 2,794,477, that the earliest act of conception that will rely upon herein is the paint brush activity commencing on or about October 8, 1943, and documented in a notebook as of October 29, 1943, with the following notation, "Al Starkey suggested using the detearing action from the bottom of a brush as the atomizing agent to spray items passing under this arrangement"?	64. Yes.

10

Request for Admissions	Answer
65. Does the defendant admit for the purpose of this law suit (as testified to by Dr. Emery P. Miller, R. 154) that (a) in the use of its so-called air type No. 1 electrostatic coating system, such system had been tried and operated with a "jet of liquid adjacent the high potential electrodes in the area of the corona discharge" and (b) "and with the result that the material atomised off the device"?	65. No, but Dr. Emery P. Miller observed that, upon shutting off the operation of the air type No. 1 electrostatic coating system, when the flow of compressed air from the air spray gun ceased before the flow of paint ceased, a jet of liquid paint was momentarily discharged adjacent the high potential electrodes in the area of the corona discharge, with the result that some atomization occurred.
66. Does the defendant admit for the purpose of this law suit (as testified to by Dr. Emery P. Miller, R. 126) that liquid that is atomized in an electrostatic field is of necessity also dispersed?	66. Yes.
68. Does the defendant admit that (a) its so-called No. 1 or air type electrostatic coating system is prior art with reference to both of the patents in suit and (b)	68. (a) Yes. (b) .....
69. Does the defendant admit that its airless No. 2 electrostatic coating system has been used for spraying liquid materials in which (a) paint, (b) ..... (c) ..... (d) ..... (e) ..... (f) alcohol containing coating materials, or (g) water containing coating materials is included?	69. (a) Yes. (b) ..... (c) ..... (d) ..... (e) ..... (f) Yes. (g) Yes.

11

Request for Admissions	Answer
71. Does the defendant admit that in granting its licenses in the airless electrostatic coating field (a) it has not only granted licenses under its letters patent in suit, but has also joined with such licenses leases for equipment furnished by the defendant and (b) has at all times maintained title to all equipment it has furnished its licensees under its agreements with them and (c) in no case prior to the filing of this suit has it ever actually granted a license without the license being accompanied by a lease of equipment?	71. (a) Yes. (b) Yes. (c) Yes.
72. Does the defendant admit that it was a party plaintiff in a suit brought in the district court of the District of Columbia under 35 U. S. C. 145, formerly known as Section 4915 of the Revised Statutes, to adjudge Emery P. Miller as being entitled to receive a patent on an application, Serial Number 626,631, filed on November 5, 1945, and which case was decided adversely to defendant on March 2, 1955, in 129 F. Supp. 241, affirmed at 229 F. 2d 21?	72 Yes.
73. Does the defendant admit that its licensing program with respect to the use of an electrostatic field in the dispersing and depositing of an oil coating was urged as part of its commercial success picture in the aforesaid law suit, *Miller* v. *Weeks*, No. 1730-53, 129 F. Supp. 241?	73. No, but Defendant admits that it relied upon its oil-coating licenses as evidence of commercial success in such suit.
74. Does the defendant admit at the time of the pendency of the *Miller* v. *Weeks* suit (129 F. Supp. 241) that as to the three prior reference patents in suit referred to in the court's decision it had a license under the Wintermute patent 2,221,338 and owned the other two patents, namely the Pugh patent 1,855,869 and the Ransburg patent 2,334,648?	74. No, but defendant admits that, at the time of the pendency of the *Miller* v. *Weeks* suit (129 F. Supp. 241), of the three prior reference patents referred to in the court's decision, defendant had a license under the Wintermute patent 2,221,338 and owned the Ransburg Patent 2,334,648, the Pugh Patent 1,855,869 having previously expired.
75. Does the defendant admit for the purpose of this law suit that the electrostatic deposition process of its patent 2,685,536 can be used for the atomization, dispersion and deposition of a lubricant or oil coating on an article?	75. No, but defendant admits that the process of its patent 2,685,536 can be used for the atomization, dispersion, and deposition of a lubricant or oil coating on an article.

12

Request for Admissions	Answer
79. (a) The William A. Starkey et al application Serial No. 556,390 referred to in the E. M. Ransburg patent No. 2,658,009, which was issued November 3, 1953 from an application filed May 13, 1948, and was entitled "Electrostatic Coating Method and Apparatus", is the same parent application from which both of the Starkey et al patents Nos. 2,685,536 and 2,794,417 in suit were based, and	79. (a) Admitted.
(b) the process of said Ransburg Patent No. 2,658,009 is dominated by claims in suit of the Starkey process Patent No. 2,685,536, and	(b) Defendant admits that certain aspects of the process of said Ransburg Patent No. 2,658,009 are regarded by Defendant as dominated by claims in suit of the Starkey Process Patent No. 2,685,536; otherwise denied.
(c) the apparatus disclosed in said Ransburg Patent No. 2,658,009 is dominated by Claim 4 of the Starkey apparatus Patent 2,794,417 in suit.	(c) Defendant admits that certain features of one form of apparatus disclosed in said Ransburg Patent No. 2,658,009 are regarded by Defendant as dominated by Claim 4 of the Starkey Apparatus Patent No. 2,794,417 in suit; otherwise denied.
80. (a) The specific apparatus for electrostatic coating shown in the drawings of the Ransburg Patent No. 2,658,009 making use of a secondary electrostatic field between the jet propelling nozzle and the article has never been commercialized by the defendant,	80. (a) Defendant admits that it has never commercialized any apparatus exactly corresponding to any specifically disclosed in the Ransburg Patent No. 2,658,009; otherwise denied.
(b) but the defendant has commercialized the "general process" of the Ransburg patent 2,658,009 in its licensing and leasing of its No. 2 airless electrostatic coating system.	(b) Defendant has commercialized the process of Patent No. 2,658,009 to the extent that certain of its customers use a secondary electrostatic field to shape the spray; otherwise denied.
81. (a) Defendant received a letter dated December 17, 1952, from the American Wringer Company of Woonsocket, Rhode Island reading as follows:	81. (a) Admitted.
"Ransburg Company Indianapolis, Indiana Gentlemen: We understand that you are connected with an electrostatic painting process, and we are much interested to know if such process or equipment would be serviceable to us in the cotton flocking of latex dipped products.	

Request for Admissions	Answer
81. (cont'd)	81. (cont'd)
Our product requires a reasonably heavy evenly distributed coating of flock applied while the latex is wet and in such manner as it will not wash off or rub off. Please tell us what you may have to offer for such purposes, Yours truly," and	
(b) defendant replied to such letter in a letter dated December 29, 1952, reading as follows:	(b) Admitted.
"American Wringer Co., Inc. Woonsocket, Rhode Island Gentlemen: We have your letter of December 17 requesting information concerning the possibility of our being of help to you in the application of cotton flocking to latex dipped products. Our experience in this field has been extremely limited and therefore we would like to refer you to the Behr-Manning Corporation of Troy, New York, whose experience in this field has been very extensive. I believe they are in a position to advise you concerning the possibility of carrying out your operation with the use of electrostatic fields. I am certain that Mr. John Amstus of the Behr-Manning Corporation would be most happy to discuss your particular application with you. Very truly yours, Ransburg Electro-Coating Corp. Emery P. Miller EPM:ch CC: Mr. John Amstus Behr-Manning Corporation"	

14

Request for Admissions	Answer
82.	82.
(a) Defendant received a letter dated February 10, 1955 from the Dewey and Almy Chemical Company of Cambridge, Massachusetts, reading as follows:	(a) Admitted.
"Ransburg Electro-Coating Corporation 1204 Barth Avenue Indianapolis, Indiana Gentlemen: We understand that you manufacture equipment for charging drums electrostatically to be used with a floc spraying process in coating materials. Could you send us your literature on the equipment and whatever else you may have on the floc spraying process. We have an application which we are considering for use on this process and are interested in what you may have. Very truly yours, D. A. Trageser" and	
(b) defendant replied to such letter in a letter dated February 15, 1955 reading as follows:	(b) Admitted.
"Dewey and Almy Chemical Company Div. of M. R. Grace & Co. Cambridge 40, Massachusetts Gentlemen: We have your letter of February 10 and wish to thank you for your interest in electrostatic spraying. The application of flock with electrostatic methods is somewhat out of our field since we are primarily interested in the application of liquid coating material such as paints, lacquers, enamels, etc. The field of flock coating electrostatically has been quite fully and completely developed by the Behr-Manning Corporation of Troy, New York. I would like to suggest that you contact them concerning your problems. Mr. John Amstus of that company would be pleased to discuss these matters with you. Very truly yours, Emery P. Miller"	

15

Request for Admissions

83. The first contact the defendant had with Behr-Manning Corporation leading up to its cross-license with that company was in a letter dated November 22, 1940 from Behr-Manning to the defendant, reading as follows:

"November 22, 1940

Mr. Harper J. Ransburg
Harper J. Ransburg Company,
Indianapolis, Indiana

Dear Mr. Ransburg:

From several sources, it has come to our attention that your company has been interested in developing an electrostatic method for depositing paint in a finely divided or suspended particle form on irregularly shaped objects. For many years, Behr-Manning has been employing the electrostatic method to deposit finely divided material of all types and I am writing to you because of our apparent interest in the same development.

We have been manufacturing sandpaper made by the electrostatic process since 1926 and our developmental work of course preceded this date. From the propulsion of abrasive particles, we moved into new fields involving the deposition of finely divided or suspended particles and during the past few years, we have successfully developed electro-coated pile fabrics for use as automobile upholstery, dress material, etc. Many of our operations have been covered by patents some of which you probably may have seen and many patent applications are pending. We have been interested in the field in which you apparently are working and have done developmental work, namely, the electrodeposition of paint or other liquids and some of our patent coverage is directed to this art.

It has occurred to us that it would not be amiss to arrange for a meeting either in Indianapolis or Troy at the convenience of both parties to discuss our individual interests and positions in the electrostatic deposition field. We will be glad to have representatives visit you in Indianapolis on a mutually satisfactory date or we will be pleased to see you here if you prefer. Will you kindly let us have your reaction to our proposal.

Yours very truly,
Behr-Manning Corporation
E. C. Schacht
Vice President"

Answer

83. Defendant admits that the fi
contact either it or its predeces
had with Behr-Manning Corp. w
the letter dated November 23, 19
otherwise denied.

16

Request for Admissions	Answer
84. (a) Beginning around March 21, 1949, and for several years thereafter, defendant leased and licensed its No. 2 airless electrostatic coating system without having *issued* to it any letters patent affording the defendant exclusive patent rights as to airless electrostatic spray coating, and	84. (a) Admitted.
(b) defendant in its leasing and licensing of the No. 2 system during *said several year period*, included in every instance in its printed form of an agreement a provision that the lessee was being licensed under letters patent or patent applications of the defendant, and	(b) Admitted.
(c) during that period of several years, defendant in no instance notified any lessee and licensee in writing that the defendant had no letters patent affording it any exclusive rights on the airless No. 2 system.	(c) Denied.
85. (a) That as far as defendant knows, as of on or about July 15, 1953, there was no airless electrostatic spray coating system on the market outside of those being marketed by defendant, and	85. (a) Admitted.
(b) the only source, as far as defendant knew, for such systems was the defendant.	(b) Admitted.
86. (a) Initially when defendant granted its first license in both typed and printed form on its No. 2, or airless electrostatic system, defendant had no *issued patent* disclosing or claiming *airless* electrostatic spray coating, and	86. (a) Admitted.
(b)	(b) .....
87. (a) Defendant (in further regard to the subject of the foregoing Request No. 86) did at the time of the granting of its initial licenses (both typed and printed) purposely include the aforesaid terms "letters patent of the United States" (or the equivalent thereof) even though defendant then had no United States letters patent issued covering or claiming *airless* electrostatic spray coating, and	87. (a) Admitted.
(b)	(b) .....

17.

Request for Admissions	Answer
88.	88.
(a) Defendant has never leased any of its airless electrostatic spray coating equipment without at the same time granting a license under its patents and	(a) Defendant admits that it has never leased any of its airless electrostatic spray coating equipment without at the same time granting, at least by implication, license under its patents to use the leased equipment in accordance with the terms of the contract with the customer; otherwise denied.
(b)	(b) .....
89.	89.
(a) Defendant on January 18, 1954, wrote a letter to the Avco Manufacturing Corp. comprising a part of its leasing and licensing agreement No. 5228 with Avco for airless electrostatic deposition of liquid, and	(a) Admitted.
(b) included in said agreement Exhibit A comprising a list of patents and patent applications which Defendant owned and Exhibit B comprising a list of patents and application as to which Defendant had the right to grant licenses, and	(b) Admitted.
(c) that the majority of such patents so listed did not disclose or claim *airless* electrostatic atomization of liquid particles, and	(c) Admitted.
(d) such majority in reality related for the most part to air type electrostatic spraying.	(d) Defendant admits that the majority of patents listed in said Exhibits A and B related to processes in which the particles deposited were formed otherwise than by electrostatic atomization; otherwise denied.
90.	90.
(a) That of the thirty-six patents listed in Exhibit A embodied in defendant's agreement of January 18, 1954, comprising part of its airless electrostatic coating agreement No. 5228 with Avco Manufacturing Corp., only four, namely Turner Patent No. 2,651,287 and Crouse Patent No. 2,568,611, Ransburg patents Nos. 2,658,009 and 2,658,472, disclosed or claimed *airless* electrostatic spraying of liquid, and	(a) Admitted.
(b) none of those patents covered the No. 2 system leased and licensed to Avco Manufacturing Corp.	(b) Admitted.

18

Request for Admissions	Answer
91. Defendant entered into licensing and leasing agreements as to its electrostatic airless or No. 2 system with Enameled Steel and Sign Company of Chicago, Illinois (No. 3448) as of March 21, 1949, and with Eastern Venetian Blind Company of Baltimore, Maryland (No. 3530) as of June 14, 1949,	91.
(a) in each of which agreements the licensee or user was given a patent license to use Defendant's Process, with the express provision "but said right shall not include the use of said Process in the manufacture of abrasive articles, flock-coated articles or articles coated with fiber shaped particles", and	(a) Admitted.
(b) that as far as is known to defendant, the equipment furnished under the aforesaid two agreements was not used "in the manufacture of abrasive articles, flock-coated articles or articles coated with fiber shaped particles", and	(b) Admitted.
(c) at least in the case of the user Enameled Steel and Sign Company, such user was apprised of the fact that defendant was making such exclusion because of its agreement with Behr-Manning Corporation.	(c) Denied.
94.	94.
(a) As far as known by the defendant, at least since the execution of its predecessor's agreement dated September 26, 1944 with Behr-Manning Corporation, it has never experienced any competition by that company in the field of electrostatic spray coating of liquid particles and	(a) Defendant admits that to the best of its knowledge Behr-Manning Corporation has never attempted to market any system involving electrostatic coating with liquid particles; otherwise denied.
(b)	(b) .....
97.	97.
(a) The figure of forty percent of the initial leasing fee for a patent license without equipment set forth in the third paragraph of defendant's "Pricing Guide for No. 2 Process", dated July 15, 1953, was not dependent upon or varied by the number of patents or patent applications applicable to the equipment to be licensed, and	(a) Admitted.

19

Request for Admissions	Answer
97. (cont'd) (b) such figure was arrived at by management of defendant with the intention that it might be uniformly used by salesmen in future contacts with customers regardless of specific requirements of customers for the No. 2 system.	97. (cont'd) (b) Admitted to the extent indicated in the pricing guide; otherwise denied.
99. In the license agreement entered into by defendant with Research Corporation of New York on October 7, 1948, in which the defendant obtained a license to manufacture, use and sell apparatus embodying the inventions of patents Nos. 2,097,233 and 2,221,338 and to sublicense others to use the methods of said patents and to use and sell, but not to manufacture the apparatus of said patents; it was specifically provided that the license granted defendant "does not include use of any such invention in connection with flock deposition, flock-coated material or in the manufacture of abrasives and coated abrasives."	99. Admitted.
101. (a) In the negotiation for the license agreement dated October 7, 1948 between Research Corporation of New York and the defendant, a revised draft of the agreement was submitted to defendant's counsel by Research Corporation in a letter dated August 23, 1948, and wherein Paragraph 3 (c) of the agreement setting forth the license right given to defendant and the right to sublicense was modified to include the following: "• • • *provided nevertheless*, that such right shall be limited to apparatus employing one or more of the inventions of the Licensed Patents in the electrostatic deposition of liquid materials and shall specifically preclude any use in connection with flock-deposition, flock-coated material, or the manufacture of abrasives and coated abrasives." and	101. (a) Admitted.
(b) such agreement was executed with said quoted provision, and	(b) Admitted.

Request for Admissions	Answer
102.	102.
(c) defendant after the execution of said agreement did not violate the requirements of the aforesaid quoted provision.	(c) Defendant admits that it has not engaged, and has not purported to license any other to engage, in flock-deposition, or the manufacture of any flock-coated material, abrasives, or coated abrasives under the patents which were the subject of its contract with Research Corporation; but Defendant otherwise denies section (c) of Request No. 101, and specifically denies that its contract with Research Corporation expressed any commitment limiting its activities.
20	
(a) In the negotiations by the defendant's predecessor with Behr-Manning Corporation leading up to the agreement of September 26, 1944, the Ransburg Company, as of August 8, 1944, made the following representation to Behr-Manning Corporation:	(a) Admitted.
"Patent No. 2,270,341 is the one to which we referred as possibly interesting to you in the abrasive (pileous fabric field, or at least one in which you could contribute materially in the composition cork industry or the fireproof insulating single industry." and	
(b)	(b) .....
(c) defendant, after the consummation of said agreement, never did market or license or lease any equipment under its said patent 2,270,341 in the solid particle field, and	(c) Admitted.
(d)	(d) .....
103. In the negotiations of defendant's predecessor company with Behr-Manning Corporation leading up to the consummation of the agreement dated September 26, 1944,	103.
(a) the Ransburg Company in a letter dated November 3, 1944, to Behr-Manning Corpo[illegible]n indicated that its "greatest concern" was as follows:	(a) Admitted.
"Our greatest concern and that to which we have given the most thought and consideration was the question of just how to word our	

Request for Admissions	Answer
future license agreements so that there could be no question in the minds of our users that they were restricted from operating in your field, and still not create undue sales resistance for ourselves. It was originally our thought that this would best be accomplished by adding to our license agreements 'said right does not include the use of this process in the manufacture of abrasive articles or articles coated with particles of fibrous material of every kind.' "However in reading this from our customer's viewpoint it is conceivable that 'fibrous materials' could possibly be interpreted by one who was not present at our meetings to mean particles of any mate-	

103. (cont'd)	103. (cont'd)
rials in nature which are fibrous in character. This interpretation could bring into this category practically all organic materials or their derivatives and might even be broadly construed to include cellulose lacquers or paints inasmuch as fibrous materials are used in their manufacture. We are certain it was your feeling that this term should have included only those materials which were used in a filament-like shape regardless of their basic or molecular character. We feel it is more in harmony with the thoughts expressed at our meetings, therefore, to base our description of this particular field on the shape of the particles rather than upon their basic nature. We might point out that fiber-shaped particles would include glass fibers and possibly others which normally would not be considered as 'fibrous material'. "We, therefore, have in mind adding the following, 'said right does not include the use of this process on articles used as an abrasive or articles coated with fiber-shaped particles.' If you have any contrary views or suggestions for improvement we shall appreciate receiving them.	

Request for Admissions	Answer
"In view of the above and fostered by our thoughts along this line it occurred to us that the use of the phrase 'particles of fibrous material' throughout the agreement could well be misinterpreted by an outsider. We feel therefore that this might be more clearly restated following the same thought." and	
(b) further proposed in said letter changes in the draft of the agreement being considered so as to "be more in harmony with our meeting of minds in our recent meetings", and	(b) Admitted.
(c) made the following remarks in connection with Ransburg's licensees:	(c) Admitted.
"Another point which arises in our minds is that pertaining to our outstanding license agreements which were referred to when you were here but which are not mentioned in the agreement. While we feel it most improbable that any of our licensees will or can ever use the process which they are licensed to use, in such a way as to invade,	

22

103. (cont'd)	103. (cont'd)
even to the slightest extent, any of the fields in which you are operating, we nevertheless feel that there should be complete understanding in respect to such licensees. Our execution of the agreement is, therefore, necessarily upon the assumption that it is subject to these outstanding licenses. In order that you may have full information on the subject and because we feel also that doing so will reassure you as to the improbability of these licensees ever invading your fields, we enclose a list of such licensees, and the description of their rights to use the process under their respective agreements. We also have a few proposals outstanding which, if accepted, will fall into the same category."	

Request for Admissions	Answer
105. During the course of its negotiations leading up to the license agreement dated September 26, 1944, with Behr-Manning Corporation, defendant's predecessor company received in the usual course of business the following quoted letter dated November 24, 1944:	105. Admitted.
"November 24, 1944 Mr. Harper J. Ransburg Harper J. Ransburg Company Indianapolis 7, Indiana Dear Mr. Ransburg: "Enclosed you will find three copies of the electrocoating agreement which have been signed by Behr-Manning in the form in which the agreement was redrafted as outlined in your letter of November 13. We think that the suggested changes were in accord with our verbal discussion and reflect a true meeting of minds. "It is my impression that the copy of the electrocoating agreement which you have executed with your existing licensees or had under negotiation with prospective licensees at the time our agreement was being consummated, contains an indication of the purpose for which the licensed Ransburg equipment is to be employed by the licensee.	

23

105. (cont'd)	105. (cont'd)
"If this is the case and since no licenses have to your knowledge been granted in the flock or abrasive fields, we do not forsee difficulty or conflict with any of your existing licensees and it should not be difficult for you to so limit your future licensees as to prohibit the employment of the patents under which you have given us exclusive rights for abrasives and flock-coated articles, in these fields. "We are looking forward to a pleasant and mutually profitable association in this new cross license agreement. Yours very sincerely, Behr-Manning Corporation E. C. Schacht Vice President"	

Request for Admissions	Answer
106. Defendant's predecessor, Harper J. Ransburg Company, in connection with its licensing agreement with Behr-Manning Corporation, received the following quoted letter in the mails: "September 27, 1944 Mr. Harper J. Ransburg Harper J. Ransburg Company Indianapolis 7, Indiana Dear Mr. Ransburg: "In the proposed cross licensing agreement enclosed in an accompanying letter, you will note in paragraphs 3 and 4 that Ransburg and Behr-Manning have reserved unto themselves the right to bring infringement actions under and defend the validity of their own patents. If this provision is acceptable to you, it will solve our problem with DeVilbiss because we can separately guarantee DeVilbiss immunity from suit for infringement of Smyser which is all that they had previously negotiated for in their request for a non-exclusive license. "As soon as you have indicated that the proposed cross-licensing agreement is satisfactory, we will communicate with DeVilbiss and arrange to give them written assurance in regard to Smyser. We will also want to inform the General	106. Admitted.
24	
106. (cont'd) Electric Company of our contract with you and the settlement with DeVilbiss because we are anxious to continue to cooperate with the General Electric Company in several fields. Yours very truly, Behr-Manning Corporation Vice President"	106. (cont'd)
110. (a) Defendant in its licensing of its airless or No. 2 system does not separately license each applicable patent, but (b) licenses in blanket form all of its patents which it considers may be applicable in each instance.	110. (a) Admitted. (b) Admitted to the extent that each of Defendant's customers receives, in effect, a covenant that it will not be sued for infringement of any of Defendant's present or future patent rights so long as the customer does not operate beyond the scope of the use specified in its written agreement with Defendant; otherwise denied.

619 UNITED STATES DISTRICT COURT.
(Caption—56-C-262)

MEMORANDUM OPINION.

The defendant, pursuant to Rule 56 (b) of the Federal Rules of Civil Procedure moved the Court to enter summary judgment for it on the following separable issues raised by the pleadings:

1. Alleged misuse by defendant of its United States Letters Patent Numbers 2,685,536 and 2,794,417;

2. Alleged violation by defendant of the Anti-Trust laws of the United States;

3. Alleged unfair competition by defendant, upon the ground that with respect to each of said issues there is no genuine issue as to one or more material facts and that it is entitled to judgment thereon as a matter of law.

In support of the motion the defendant submitted the pleadings, the discovery depositions of Burke Bernard Roche, John W. Baur, and Benjamin J. Hedger, the answers to all interrogatories addressed by either party to the other, and the affidavit of E. M. Ransburg.

In opposition to the motion, the plaintiff offers the additional evidence to that offered by defendant of de-
620 fendant's certain answers[1] to plaintiff's request for admissions; certain questions and answers[2] from the discovery depositions of Elmer Houlberg, Andrew G. Hubbard, Clarence Goltermann; certain questions and answers[3] from the discovery deposition of Milton F. Pleva; ex-

1. Admission: 1-3, 6, 8-12, 15, 17-19, 21, 22, 30, 34, 41, 42, 44, 46, 53, 56-58, and 71.

2. See appendix to plaintiff's brief in opposition filed July 11, 1958.

3. See deposition pages 168, 172, and 173.

hibits to the original complaint; letter dated July 15, 1953 from defendant to Altex Corporation; pricing guide of defendant dated July 15, 1953; Certified Copy File Wrapper and Contents, of patents in issue.

The docket history of the action is: the action concerning United States Letters Patent Number 2,685,536 was commenced by plaintiff's complaint on October 11, 1956 which was amended October 26, 1956. Defendant filed its answer and counterclaim on December 3, 1956. Plaintiff moved to dismiss its complaint on December 10, 1956 which was granted January 29, 1957. Plaintiff also on December 10, 1956 filed his answer to the counterclaim and filed a cross-counterclaim. Defendant filed its answer to the cross-counterclaim on February 18, 1957. Plaintiff amended its cross-counterclaim and its answer to the counterclaim on March 5, 1958.

Because of another United States Letters Patent Number 2,794,417 having been issued to defendant on June 4, 1957, the defendant on March 31, 1958 filed its supplemental answer to the amended cross-counterclaim and on May 21, 1958 filed its supplemental counterclaim bringing the new patent within the issues. It was stipulated by the parties that all prior proceedings, pleadings, interrogatories and depositions apply where applicable to the supplemental counterclaim.

621 Defendant filed its motion for summary judgment on May 26, 1958.

Thereafter plaintiff on June 11, 1958 answered the supplemental counterclaim and on August 7, 1958 plaintiff amended its answer to the supplemental counterclaim and amended its cross-counterclaim. Defendant filed on August 7, 1958 its answer to the amended cross-counterclaim.

By agreement of the parties on August 7, 1958, the defendant refiled its motion for summary judgment and

the affidavit of E. M. Ransburg in support thereof. It was stipulated that the pleadings referred to in the motion be deemed to include all pleadings herein as amended and supplemented.

The issues of misuse of the patents in question are raised by rhetorical paragraph seven (7) of plaintiff's answer to the counterclaim, rhetorical paragraph eight (8) of plaintiff's answer to supplemental counterclaim, and rhetorical paragraphs eighteen (18) through forty-eight (48) of the cross-counterclaim.

The issues of violation of the Anti-Trust laws of the United States are raised by rhetorical paragraphs eighteen (18) through forty-eight (48) of the cross-counterclaim.

The issues of unfair competition are raised by rhetorical paragraphs nine (9) of plaintiff's answer to supplemental counterclaim of June 11, 1958, and among others paragraphs nineteen (19), twenty-two (22), and forty (40(c)) of the cross-counterclaim.

Upon hearing and argument plaintiff suggested that the affirmative defense of misuse of the patents in question is in equity and that no summary judgment can be granted under 56 (c) F. R. C. P. as the defendant moving party would not be entitled, as a matter of law, to a judgment. This phase of defendant's motion will be denied upon authority of *Seaboard Surety Co.* v. *Racine Screw Co.* (1953), C. A. 7, 203 F. 2d 532. Judge Major held at pages 533 and 534:

622 "Much of plaintiff's brief is devoted to an argument in support of its contention that there was 'no genuine issue as to any material fact' and that plaintiff, therefore, was entitled to a summary judgment as a matter of law. While we think there was a genuine issue of material fact involved, we find it unnecessary to resolve that dispute because, even though plaintiff's contention be accepted, it still was not entitled to a decree as a matter of law."

> "In a legal action, a party is entitled to all the law allows; in the instant action for equitable relief, plaintiff was entitled only to that which the Court in the exercise of a sound discretion concluded to be fair and equitable. And undoubtedly, in the latter situation the Court was duty bound to take into consideration many circumstances and factors which would be of no consequence in the former. It is not difficult to visualize that in an action for specific performance, one Court, on a certain set of facts and circumstances, might allow the relief sought, while another Court on exactly the same record might deny the relief. And it is possible that both Courts, on appeal, would be affirmed, because neither was shown to have abused its discretion."

This is authority that plaintiff filing the answer in question could not have summary judgment and I conclude that the defendant cannot for the same reason.

As to the second phase of the motion whether or not there is an issue of material fact concerning the alleged Anti-Trust violations the facts must be examined.

Among the many allegations of Anti-Trust violations the plaintiff alleges at paragraph thirty (30) of its cross-counterclaim, which is denied in defendant's answer, the following:

> "Defendant's predecessor, Harper J. Ransburg Company, entered into an agreement in restraint of trade with the Behr-Manning Corporation dividing the field of electrostatic coating between the parties thereto. Defendant has succeeded to all of said predecessor's rights under said agreement, and in furtherance of the purposes thereof, has coerced the trade into dealing only with the defendant in the field of electrostatic spray coating of liquids."

for which plaintiff asks for a money judgment under 15 U. S. C. A. 15.

The evidence offered on this issue discloses:

That on September 26, 1944, an agreement was executed between defendant's predecessor partnership and Behr-
623 Manning Corporation[4] at the time Behr-Manning Corporation was a leading manufacturer of abrasive articles and defendant's predecessor was engaged in the initial marketing of No. 1 Process electrostatic painting systems. Behr-Manning Corporation owned patent rights which, although they were directed primarily to the electrostatic application of abrasives, adhesives, flocks and fibers, defendant's predecessor anticipated might be asserted against it and users of its No. 1. Process. The agreement was entered into by defendant's predecessor to avoid such possible charges and to permit it to market the No. 1 Process without interference.

The defendant admits that Behr-Manning Corporation has not gone into competition with the defendant in the electrostatic liquid spraying field.[5]

The defendant admits that it has not issued any license in the field of manufacturing abrasive articles, flock coated articles, and/or artciles coated with fiber-shaped particles.[6]

The defendant admits receiving inquiries as to whether its processes and equipment are suitable for manufacturing abrasive articles, flock coated articles, and/or articles coated with fiber-shaped particles. Defendant replied in substance that its processes and equipment was primarily for electrostatic painting, and has informed them that Behr-Manning Corporation might be able to furnish the desired information.[7]

It is apparent that the contract set forth does not express the intent and purpose of the parties cross licensing

4. Exhibit "V" attached to affidavit of Ransburg.
5. Admission fifty-eight (58).
6. Interrogatory eighty (80(a)).
7. Interrogatory eighty-three (83(a)(b)).

their patents. The affidavit of Mr. Ransburg is not clear as to the intent and purpose. It recites, "anticipated 624 might be asserted against it" (Ransburg partnership) "and users of its No. 1 Process." It further recites, "The agreement was * * * to permit it to market the No. 1 Process without interference." Two inferences from these facts may be drawn. That it was a bona fide settlement of possible infringement claims, and/or that it was to prevent completion, create a monopoly and restrain trade in Ransburg's field of operation. If the latter inference prevails, then the remaining facts set forth above disclose a distribution between the contracting parties of the market into two fields of electrostatic spray coating and creating a monopoly forbidden by the Anti-Trust laws.

The facts clearly demonstrate that the defendant is the sole producer of its product in the United States and has complete dominance thereof. With complete dominance and the adopting of such inference for the purpose of showing there is an issue of fact, the defendant has illegally obtained the power to fix and maintain royalties which is tantamount to the power to fix prices.

The agreement for cross licensing used to effect a monopoly, or to impose an unreasonable restraint upon interstate commerce violates the Sherman Anti-Trust Act. *Bement* v. *National Harrow Co.*, 186 U. S. 70, 22 S. Ct. 747 46 L. Ed. 1058; *Cement Manufacturers Protective Association* v. *United States*, 268 U. S. 588, 604, 45 S. Ct. 586, 592, 69 L. Ed. 1104; *United States* v. *General Electric Co.*, 272 U. S. 476, 490, 47 S. Ct. 192, 71 L. Ed. 326; *United States* v. *Trenton Potteries Co.*, 273 U. S. 392, 397, 47 S. Ct. 377, 71 L. Ed. 700, 50 A. L. R. 989; *United States* v. *International Harvester Co.* (D. C., 214 F. 987; *Standard Oil Co.* (Ind.) v. *United States* (Ill.), 51 S. Ct. 421, 283 U. S. 163, 75 L. Ed. 926.

There is a genuine issue of fact where two inferences

may be drawn from an undisputed fact and summary
625 judgment cannot be granted on this phase of the case.
Taylor v. *Virden* (8 Cir.) 217 F. 2d 739; *United States* v. *Dollar* (9 Cir.) 196 F. 2d 551; *Ramsouer* v. *Midland Valley R. Co.* (8 Cir.) 135 F. 2d 101; *Rowan* v. *United States* (5 Cir.) 219 F. 2d 51; *United States* v. *General Ry. Signal Co.* (D. C. W. D. N. Y.) 110 F. Supp. 422.

As to the third phase of the motion whether or not there is an issue of material fact concerning the alleged unfair competition, the facts must be examined.

And among the allegations of unfair competition, the plaintiff alleges at paragraph twenty-two (22) of its cross-counterclaim, which is denied in defendant's answer, the following:

> "The defendant, its officers and • • • inventors of the Starkey et al. patent, • • •, have conspired • • • in restraint of trade and in the monopolizing, through patents and illegal agreements, of the electrostatic spray equipment business and in interstate commerce, contrary to the Anti-Trust and Anti-Monopoly laws of the United States, and in so doing have committed illegal acts of unfair competition, all to the detriment of the public and to the damage of the plaintiff."

There being an issue of fact on the alleged Anti-Trust issue of the Behr-Manning Corporation transaction, and the issue of alleged illegal contract of the Behr-Manning Corporation transaction, upon which this charge of unfair competition is based it follows that there is an issue of fact of unfair competition as to both patents in issue.

And among the allegations of unfair competition, the plaintiff alleges at paragraph forty (40(c)) of its cross-counterclaim, which is denied in defendant's answer, the following:

> "(c) That even then such vague and indefinite language was only adopted as a means of obtaining an additional claim with which to harrass plaintiff with an unwarranted charge of infringement."

626 The basis of this charge is the alleged harassment by an alleged unwarranted charge of infringement of the later patent. The infringement issue is unsupported factually in this summary judgment proceeding and the motion must fail. Infringement was specifically excluded from the issues of the summary judgment proceeding by defendant.

It is unnecessary to recite any other issue of fact.

What inference or inferences will be adopted upon trial will depend upon the weight of the whole of the evidence.

It is therefore, Ordered and Adjudged that the defendant's motion for summary judgment is denied.

Dated this 2nd day of September, 1958.

Cale J. Holder,
Judge, United States District Court Southern District of Indiana.

611 IN THE UNITED STATES DISTRICT COURT.
• • (Caption—56-C-262) • •

STIPULATION.

It is hereby stipulated that:

1. Soft copies of patents or photographic or photostatic copies of printed publications, or of parts thereof, may be used as evidence in the above identified action in place of the originals and without need for formal authentification wiht the same force and effect as the originals, subject to correction if error appears.

2. The parties hereto may retain custody of all their respective original exhibits, subject to inspection by the other party upon reasonable notice. Photostatic copies of all documentary exhibits, or parts thereof, may be offered

in evidence in place of the originals and without need for formal authentification with the same force and effect as the originals, subject to correction if error appears.

3. The dates upon which all printed publications (exclusive of patents), domestic and foreign, cited by plaintiff in its pleadings, were available as publications in this country are all more than one (1) year prior to September 29, 1944, the filing date of the Starkey and Ransburg Patent No. 2,685,536 in suit.

4. Defendant, Ransburg Electro-Coating Corp. is the owner by assignment of all right, title and interest in and to the Starkey and Ransburg Patents Nos. 2,685,536 and 2,794,417.

612 5. The parties are corporate entities as alleged in the pleadings, and this Court has jurisdiction over such parties and the subject matter in suit.

6. Insofar as any subject matter in this suit is concerned, defendant, Ransburg Electric-Coating Corp. is the successor in business to Harper J. Ransburg Co., a co-partnership consisting of Harper J. Ransburg Harold P. Ransburg, Edwin M. Ransburg, and Gregg Ransburg, and has succeeded to all rights and has assumed all obligations under agreements entered into by the Harper J. Ransburg Co. with respect to said subject matter.

Charles F. Meroni,
Hill, Sherman, Meroni, Gross & Simpson,
53 West Jackson Boulevard,
Chicago 4, Illinois,
Attorneys for Plaintiff,

Dated: July 25, 1958.

Howard W. Clement,
Byron, Hume, Groen & Clement,
38 South Dearborn Street,
Chicago 3, Illinois,
Attorneys for Defendant.

Dated: July 24, 1958.

613 UNITED STATES DISTRICT COURT.
• • (Caption—56-C-262) • •

ORDER FOR PRODUCTION OF DOCUMENTS UNDER RULE 34.

Defendant, Ransburg Electro-Coating Corp., is ordered to produce the following documents in the possession or control of Defendant for inspection, copying, or photographing by Plaintiff's counsel under the provisions of Rule 34, Federal Rules of Civil Procedure, at the offices of Defendant's attorneys, Byron, Hume, Groen & Clement in the First National Bank Building, Chicago, Illinois, at as early a time as Defendant may reasonably produce said documents, which time shall be agreed upon by counsel:

1. All correspondence between Harper J. Ransburg Company, and its successor in business, or its representatives and agents, or its attorneys and the Western Electric Company, or its attorneys, or any memorandum concerned in any way with the transfer of rights to the Pugh Patent No. 1,855,869 to the Harper J. Ransburg Company; and including the letters which Defendant has heretofore refused to produce during the course of depositions herein.

614 2. All correspondence between Harper J. Ransburg Company and its successor in business or its representatives or agents, or its attorneys and the Brush Development Company, or its attorneys, concerned in any way with the transfer of the rights to the patent application of Charles K. Gravley, Serial No. 313,914, filed January 15, 1940.

3. All correspondence between the Harper J. Ransburg Company and its successor in business or its representatives or agents, or its attorneys and the

Behr-Manning Corporation, or its attorneys, concerned in any way with the transfer of rights under patents and applications listed in the agreement dated September 26, 1944, between the two companies.

4. All correspondence between Defendant Ransburg Electro-Coating Corp., Harper J. Ransburg Company, their representatives, or their attorneys and Research Corporation, concerned in any way with the transfer of rights under patents listed in the agreement dated October 7, 1948, between Defendant and Research Corporation.

5. All correspondence, memoranda and reports, including those of Defendant's house attorneys and all past and present outside attorneys, relating in any way to the preparation and drafting of the printed license agreements herein previously identified as D-1 through D-38 in Defendant's answer to Plaintiff's Interrogatory No. 8, but excluding any privileged communications between attorney and client.

6. All correspondence, memoranda and reports of any and all past and present attorneys for Defendant having to do with the negotiations of any of the licenses herein previously identified in Exhibit E in Defend-
615 ant's answer to Plaintiff's Interrogatory No. 33, and not available through inspection of the customer and prospective customer files of the Defendant which have heretofore been made available to Plaintiff for inspection, and also excluding any privileged communications between attorney and client.

7. All reports, correspondence and written memoranda dated prior to this suit in the files of Defendant or any of its past or present counsel or agents showing in any way knowledge by Defendant of prior patents, patent applications and/or publications of third parties relating to airless electrostatic spraying,

but excluding any privileged communications between attorney and client.

Dated August 25, 1958.

Cale J. Holder,
United States District Judge.

Approved as to form
Charles F. Meroni,
Attorney for Plaintiff,
V. A. Trask,
Attorney for Defendant.

750 IN THE UNITED STATES DISTRICT COURT.
(Caption—56-C-262)

STIPULATION.

It is hereby stipulated that:

1. The printed publication entitled "The Ions Produced By Discharges At Liquid Surfaces" by Nolan and O'Keeffe, appearing in Volume XXXIX, Section A, of the Proceedings of the Royal Irish Academy, was available in this country at a date more than one (1) year prior to September 29, 1944, the filing date of the Starkey and Ransburg Patent No. 2,685,536 in suit.

Charles F. Meroni,
Hill, Sherman, Meroni, Gross & Simpson,
53 West Jackson Blvd.,
Chicago 4, Illinois,
Attorneys for Plaintiff,

Dated: October 13, 1958.

Howard W. Clemen,
Byron, Hume, Groen & Clement,
38 South Dearborn Street,
Chicago, Illinois,
Attorneys for Defendant.

Dated: 10/15/38

808 IN THE UNITED STATES DISTRICT COURT.
• • (Caption—56-C-262) • •

SECOND STIPULATION

It is hereby stipulated and agreed by and between the undersigned counsel for the respective parties that the plaintiff may, in the trial of this case, offer in evidence the attached letter dated March 4, 1955, from the Dewey and Almy Chemical Company of Cambridge, Massachusetts, to the Behr-Manning Corporation, without any need of formal proof of the sending of the letter or of its authenticity, subject only to the right of the defendant to object on the grounds of materiality and relevancy.

Charles F. Meroni,
Hill, Sherman, Meroni, Gross & Simpson,
53 West Jackson Blvd.,
Chicago 4, Illinois,

Howard W. Clemen,
Byron, Hume, Groen & Clement,
38 South Dearborn Street,
Chicago 3, Illinois,

Chicago, Illinois
Dated: Sept. 26, 1958.

809 March 4, 1955

Mr. John Amstus
Behr-Manning Corporation
Troy, New York

Dear Mr. Amstus:

The Ransburg Electro-Coating Corporation has referred me to you for information on a electrostatic method of fleck coating that might be used for coating paper with thermoplastic material.

We are interested to know if it is feasible to coat polyethylene, polystyrene, polyvinyl chloride, and like materials on paper in a continuous process where the paper is feeding through a process at perhaps 50 RPM. We understand that it might be possible to use an electrostatic method so that a plastic material can be deposited on the paper to provide a protective coating. Our chief interest is not in a completely impermeable coating, but rather a discontinuous coating of the plastic on the paper.

Do you believe that it is possible to consider your method for this kind of an application? I would appreciate any help you can give me in this matter.

Very truly yours,

D. A. Trageser,

DAT:ssp

810 UNITED STATES DISTRICT COURT.

(Caption—56-C-262).

FIRST STIPULATION

It is hereby stipulated by and between the parties, through their counsel, that the Binks airless electrostatic spray coating system here charged to infringe Starkey and Ransburg Patents Nos. 2,685,536 and 2,794,417, and one representative use of such system are accurately represented on the attached chart containing drawings forming parts of Plaintiff's Exhibits E, 28C and 28B.

The operation of the device can be explained as follows: The emitter takes the form of two sharp edged disks located on a generally cylindrical inlet body. A single cap nut threaded onto one end of the inlet body allows quick and easy disassembly of the two sharp edged disks.

Liquid coating material is fed into the inlet body through an inlet tube, the amount of flow being controlled by a valve located in the tube. Material issuing through the valve is directed to the space between the two disks by an angularly disposed passageway in the inlet body. The liquid coating material thereupon flows radially outward under a slight positive pressure to the outer, sharp edges of the disks from which it is atomized.

As indicated in the drawing of Exhibit 28C, the emitter structure is connected to a power supply which ap-
811 plies a potential in the range from about 25,000 to 110,000 volts. The emitter is spaced from an object to be coated, which object is at ground potential. The spacing between the emitter and the article has ranged from about ten inches to three feet.

As the liquid coating material is delivered to the sharp circular edges of the disk, the high voltage gradient pres-

ent forms the liquid material into discharge streamers extending outwardly from the disk edges. The tips of the streamers produced, as indicated in Plaintiff's Exhibit 28B, break off as atomized charged particles of liquid coating material outside the confines of the disk. As indicated in Exhibit 28C these particles, due to electrostatic forces, disperse in passage from the emitter disk to the article and form a spray whose dimensions are substantially greater than the length of the atomizing area along the disk.

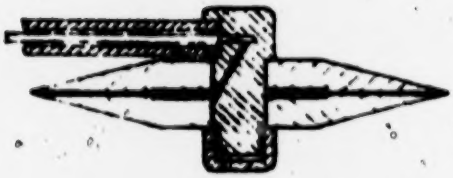
Charles F. Meroni,
Otto R. Krause,
Attorneys for Plaintiff, Binks Manufacturing Company,

Verne A. Trask,
James P. Hume,
Attorneys for Defendant, Ransburg Electro-Coating Corp.

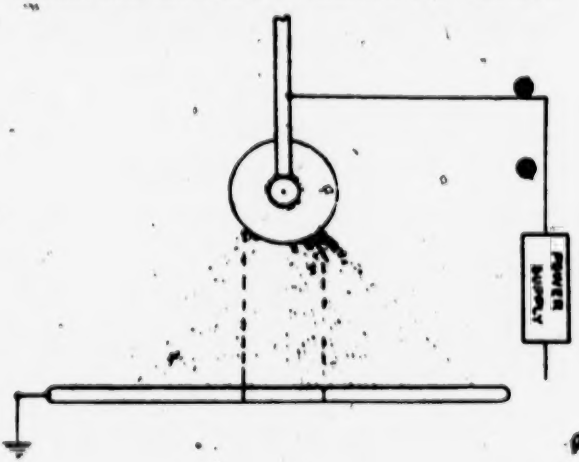
Date: November 7, 1958

BINKS' EMITTER DISK ELECTROSTATIC SPRAY SYSTEM

EMITTER DISK
PLAINTIFF'S EX. E



DISK EMITTER IN POWER SUPPLY CIRCUIT
SPRAYING ARTICLES PLAINTIFF'S EX. 28 C



874 IN THE UNITED STATES DISTRICT COURT.

* * (Caption—56-C-262) * *

STIPULATION.

It is hereby stipulated by the parties hereto through their respective counsel, this Honorable Court consenting, that:

(1) Exhibits D-1 to D-45 inclusive, attached as Exhibit D to defendant's answers to plaintiff's amended interrogatories and referred to in the answer to plaintiff's interrogatory No. 8, are illustrative of the different forms of agreement which defendant has used in its licensing program relating to the electrostatic spray coating of articles;

(2) Exhibit E, attached to defendant's answers to further interrogatories of plaintiff and referred to in the answer to plaintiff's interrogatory No. 33, identifies by number the form of license in Exhibit D which was used in the case of each of the 732 licenses granted by the defendant, as set forth in the answer to plaintiff's interrogatory No. 3;

(3) The form of license so identified in Exhibit E is the same as the form of license actually executed in each instance and such form (or a photostat thereof) may be introduced as evidence in this case in lieu of the document actually executed;

875 (4) If it shall appear, however, that any particular license as executed embodied changes made in the

printed form employed, said changes may be shown as being part of said license.

James P. Hume,
Byron, Hume, Groen & Clement,
38 South Dearborn Street,
Chicago 3, Illinois,

Charles F. Meroni,
Hill, Sherman, Meroni, Gross & Simpson,
53 West Jackson Blvd.,
Chicago 4, Illinois.

Chicago, Illinois,
Dated: November 14, 1958.

876 UNITED STATES DISTRICT COURT.
• • (Caption—56-C-262) • •

STIPULATION REGARDING DEFENDANT'S KNOWLEDGE OF PRIOR ART.

The parties, through their counsel, hereby stipulate that the Defendant, Ransburg Electro-Coating Corp., had knowledge of the following communications during the pendency of the application which ultimately issued as Starkey and Ransburg Patent No. 2,685,536:

Letter of February 19, 1948 to Miss Louise C. Simmons, a copy of said letter being attached hereto;

Letter of William J. Stellman to Defendant dated September 21, 1953 and list accompanying said letter, a copy of said list and said letter being attached hereto.

Charles F. Meroni,
Attorney for Plaintiff,

Howard W. Clement,
Attorney for Defendant.

Date: November 25, 1958.

877 Air Mail

February 19, 1948

Miss Louise C. Simmons
1079 National Press Bldg.
Washington 4, D. C.
Subject: Darrah Patent No. 1,958,406

Dear Miss Simmons:

Thank you for your prompt attention to my recent request to forward the list of references cited during the prosecution of the above patent.

I wonder if you would now be good enough to procure for us, as prompt as possible, one copy of each of the following references:

U. S. Patents: 1,051,131 Lee
1,473,347 Hoskins
1,475,995 Heis
1,295,283 Diebold
1,056,045 Murray
398,327 DeVars
739,920 Pauling

Swedish Patent No. 51,988 of 1922, Diebold
Publication: Berichte der Deutsche Chemisch Gesellschaft, Vol. 41 (1908) Page 950.

Please charge the cost of the above to Ransburg Electro-Coating Corp. account.

Very truly yours
Ransburg Electro-Coating Corp.,
By _____

CAOrdway/eh

878 (Letterhead of Schroeder, Merriam, Hofgren & Brady, Chicago, Illinois.)

September 21, 1953

Ransburg Electro-Coating Corp.
1234 Barth Avenue
Indianapolis 7, Indiana

Attention: Mr. Harry E. Downer

Re: Prior Art Patents

Dear Harry:

As I mentioned to you over the phone recently, Mr. Arnold has made available to us his prior art file on what he calls "electrostatic projection." Accordingly we had one of our Washington secretaries go into the division and list all of the patents in these files. We enclose the list for your information. We would be interested to know if any of these patents is new to you.

Very truly yours,

Schroeder, Merriam, Hofgren & Brady
Bill
William J. Stellman

WJS/sn
Encl.

878½ U. S. Patents.

Re. 20,660—Schacht
645,786—Buck
668,792—Blake et al
705,691—Morton
892,188—Schwerin
894,070—Schwerin
945,917—Cottrell
1,099,934—Schmidmer
1,123,962—Walker
1,278,521—Tillyer
1,349,362—Chubb
1,360,654—Littlefield
1,416,929—Bailey
1,549,875—Horne
1,788,600—Smyser
1,958,406—Darrah
1,698,845—Gustin
1,575,165—Hopkinson
1,584,728—Case
1,650,105—Anderson
1,710,747—Smith
1,750,177—Klein
1,816,388—Mittasch et al
1,820,194—Huebner
1,832,096—Chaffee et al
1,854,071—Schacht
1,855,869—Pugh
1,861,475—Hopkins et al
1,884,110—Morehouse
1,886,234—Meissner
1,886,236—Meissner
1,911,808—Collins, Jr.
1,932,057—Wheeler
1,940,654—Stanton
1,954,995—Harrison
1,969,379—Meissner
2,027,087—Buchner
2,027,307—Schacht
2,027,308—Schacht
2,027,309—Schacht
2,033,991—Melton
2,047,525—Thode
2,048,651—Norton
2,049,940—Barthel
2,052,131—Chappell
2,070,972—Lindenblad
2,082,182—Schacht
2,087,260—Miller

879

2,097,233—Meston
2,109,333—Formbals
2,116,942—Formbals
2,123,992—Formbals
2,128,327—Russell et al
2,128,811—Foster
2,128,907—Benner et al
2,138,938—Plensler
2,146,025—Penning
2,147,824—Webb
2,152,077—Meston et al
2,157,478—Burkhardt et al
2,158,415—Formbals
2,158,416—Formbals
2,160,962—Formbals
2,166,385—Wintermute
2,168,027—Gladding
2,173,032—Wintermute
2,173,078—Meston
2,173,242—Young
2,174,328—Meston et al
2,184,348—Kirchner et al
2,187,306—Formbals
2,187,624—Melton et al
2,191,827—Benner et al
2,194,253—Benner et al
2,198,766—Gallagher

2,207,217—Fodor
2,215,145—Clayton et al
2,215,167—Sumner et al
2,217,126—Meston et al
2,217,444—Hill
2,221,338—Wintermute
2,221,776—Carlson
2,218,445—Wintermute
2,222,539—Meston
2,223,476—Amstuz
2,224,391—Huebner
2,231,324—Crompton, Jr.
2,239,642—Burkhardt et al
2,239,695—Bennett
2,245,200—Johnson
2,245,301—Schacht
2,247,963—Ransburg et al
2,248,064—Carlton et al
2,248,853—Carlton et al
2,270,341—Ransburg

880

2,274,726—Melton
2,279,361—Amstuz
2,279,187—Thompson et al
2,286,569—Pollack
2,287,837—Smyser
2,281,558—Cross
2,300,324—Thompson
2,302,185—Campbell, Jr.
2,302,289—Bramston-Cook
2,319,082—Nestor
2,334,648—Ransburg et al
2,306,105—Grave et al
2,318,570—Carlton
2,318,571—Carlton
2,328,577—Oglesby
2,338,570—Childs
2,352,252—Canetta
2,356,489—Amstuz
2,357,354—Penney
2,357,355—Penney
2,357,658—Johnsen et al
2,359,476—Gravley
2,368,706—Fountain
2,370,636—Carlton
2,371,605—Carlton et al
2,376,342—Carlton
2,376,343—Carlton
2,376,922—King
2,384,541—Fruth
2,385,873—Melton
2,405,249—Wilson
2,405,662—McManus et al
2,408,144—Huebner
2,417,798—Ransburg et al
2,417,850—Winslow
2,418,479—Pratt et al
2,421,787—Helmuth
2,425,652—Starkey
2,429,862—Woofter et al
2,431,629—Wind et al
2,435,273—Hatfield
2,438,561—Kearsley
2,446,953—Ransburg
2,447,664—Pegg
2,424,043—Meyer
2,425,652—Starkey
2,426,016—Gustin et al
2,428,868—Dimmick

881

2,433,116—Greenbowe et al
2,437,606—Kaufman
2,442,880—Schwartz
2,442,986—Ransburg
2,446,440—Swedlund
2,451,288—Huebner
2,456,708—Kellogg
2,456,853—Arbron

2,457,256—Melton et al
2,463,422—Ransburg et al
2,464,453—Lindquist
2,465,128—Starkey
2,466,906—Miller
2,476,145—Gwyn et al
2,477,947—Yodoff
2,483,462—Huebner
2,486,877—Ransburg et al
2,491,889—Bennett et al
2,493,073—Kinneen
2,499,467—DeForest et al
2,494,470—Carlson
2,501,563—Colbert et al
2,509,276—Ransburg et al
2,509,277—Ransburg et al
2,509,448—Ransburg et al
2,520,504—Hooper
2,522,082—Arnold
2,523,618—Gilman
2,523,650—Dickson
2,525,347—Gilman
2,526,178—Weber
2,526,763—Miller
2,527,501—Saks
2,528,087—Schoepe
2,531,542—Stone
2,538,562—Gustin et al
2,544,806—Ransburg
2,546,701—Ransburg et al
2,548,477—Kohaut
2,549,927—Ransburg
2,550,657—Ransburg
2,551,035—Miller
2,558,900—Hooper
2,555,519—Tolle et al
2,559,225—Ransburg
2,560,047—York et al
2,562,358—Huebner
2,567,781—Ransburg

882

2,568,611—Crouse
2,573,881—Walkup et al
2,589,034—Beedy
2,576,922—Camin et al
2,598,466—Tuttle et al
2,600,129—Richards
2,604,870—Blood et al
2,611,930—Hill et al
2,626,589—Lamm
2,636,471—Starkey
2,644,769—Robinson

883 **Foreign and Pubs.**

British 196,695—1923—Br. Metal Spray Co. Ltd.
339,913—1930—Lohaussois
378,014—1932—Behr-Manning Corp.
396,385—1933—Behr-Manning Corp.
407,978—1934—Behr-Manning Corp.
550,391—1943—Lumb
570,552—1945—Gravley (Brush Development Co.)
594,564—1947—Ransburg et al
599,466—1948—Smyth (The Birmingham Small Arms Co. Ltd.)

German 543,843—1932—Horn
571,004—1933—Siemens-Schuckertwerke A. G.

French 827,094—1938—N. V. Philips Glacilampenfabricken

C. A. 1950/1951 Vol. 45, p. 9910b.

Scientific American, Nov. 1933, pp. 216-7; "There is no sand in sandpaper."

Plastics, Jan. 1949, pp. 12-14; "Electrostatic process of plastics," by Dickinson.

Organic Finishing, June 1951, pp. 14-15, "Using radioisotopes to develop organic finishes," by Dickinson.

884 Pamphlet (15 pp.): "Ransburg Coating Processes," Pub'd by Harper J. Ransburg Company (Electric Coating Div.), 1204 Barth Ave., Indianapolis 7, Ind. (Rec'd in Pat. Off. 10-30-47.)

Pamphlet (15 pp.): No. 2, "Electrostatic Process—An Amazing Development in Spray Painting," Pub'd by Ransburg Electrocoating Corp., 1234 Barth Ave., Indianapolis 7, Ind. (Pubd. date: July 26, 1951; Rec'd in Pat. Off. Sept. 19, 1951.)

868 IN THE UNITED STATES DISTRICT COURT.
• • (Caption—56-C-262) • •

STIPULATION REGARDING PATENT RIGHTS OF DEFENDANT.

Defendant, Ransburg Electro-Coating Corporation through its counsel, hereby stipulates that it owns or has owned at the date of expiration of any expired patents, the following United States patents, and that this list is complete:

Patent No., Issue Date and Inventors:
1,855,869—4-26-32—Emerson Pugh
2,247,963—7-1-41—H. P. Ransburg et al
2,270,341—1-20-42—H. P. Ransburg
2,334,648—11-16-43—H. P. Ransburg et al
2,335,790—11-30-43—H. P. Ransburg
2,359476—10-3-44—C. K. Gravley
2,417,798—3-18-47—H. P. Ransburg et al
2,421,787—6-10-47—R. E. Helmuth
2,425,652—8-12-47—W. A. Starkey
2,428,991—10-14-47—H. P. Ransburg
2,442,986—6-8-48—H. P. Ransburg
2,444,144—6-29-48—E. M. Ransburg
2,446,953—8-10-48—H. P. Ransburg
2,463,422—3-1-49—H. P. Ransburg et al
2,465,128—3-22-49—W. A. Starkey
2,466,906—4-12-49—E. P. Miller
869 2,486,877—11-1-49—H. P. Ransburg et al
2,509,276—5-30-50—E. M. Ransburg et al
2,509,277—5-30-50—E. M. Ransburg et al
2,509,448—5-30-50—H. P. Ransburg et al
2,526,763—10-24-50—E. P. Miller
2,526,780—10-24-50—H. K. Stoddard
2,531,542—11-28-50—R. H. Stone
2,544,806—3-13-51—E. M. Ransburg
2,546,701—3-27-51—H. P. Ransburg et al
2,549,927—4-24-51—E. M. Ransburg

2,550,657—4-24-51—H. P. Ransburg
2,551,035—5-1-51—E. P. Miller
2,553,724—5-22-51—E. M. Ransburg
2,559,225—7-3-51—H. P. Ransburg
2,567,781—9-11-51—H. P. Ransburg
2,568,611—9-18-51—W. W. Crouse
2,605,982—8-5-52—E. P. Miller
2,632,716—3-24-53—W. A. Starkey
2,636,471—4-28-53—W. A. Starkey
2,640,459—6-2-53—H. K. Stoddard
2,650,329—8-25-53—J. D. Orndoff
2,651,287—9-8-53—R. H. Turner
2,655,128—10-13-53—E. M. Ransburg
2,658,009—11-3-53—E. M. Ransburg
2,658,472—11-10-53—E. M. Ransburg
2,662,833—12-15-53—R. E. Helmuth
2,684,656—7-27-54—E. M. Ransburg
2,685,536—8-3-54—W. A. Starkey et al
2,690,730—10-5-54—J. C. Marsh
2,695,002—11-23-54—M. R. Miller
2,697,411—12-21-54—H. P. Ransburg
2,698,814—1-4-55—E. M. Ransburg
2,703,549—3-8-55—E. M. Ransburg
2,706,964—4-26-55—E. M. Ransburg et al
2,711,155—6-21-55—W. A. Starkey
2,718,477—9-20-55—E. P. Miller
2,723,646—11-15-55—E. M. Ransburg
2,723,921—11-15-55—W. A. Starkey
2,724,661—11-22-55—J. W. Juvinall
2,728,606—12-27-55—W. L. Smart et al
2,728,607—12-27-55—W. L. Smart
2,728,689—12-27-55—E. M. Ransburg
2,729,191—1-3-56—E. M. Ransburg
2,730,460—1-10-56—H. P. Ransburg
2,730,461—1-10-56—J. E. Vawter
2,730,988—1-17-56—W. A. Starkey
2,731,589—1-17-56—J. C. Marsh
2,733,171—1-31-56—E. M. Ransburg
2,736,671—2-28-56—E. M. Ransburg et al
2,741,218—4-10-56—E. P. Miller
2,744,033—5-1-56—J. W. Juvinall
2,748,018—5-29-56—E. P. Miller

2,751,564—6-19-56—J. C. Marsh
2,751,851—6-26-56—Norman S. Curtis et al
2,752,883—7-3-56—Norman S. Curtis
870 2,754,226—7-10-56—J. W. Juvinall
2,754,227—7-10-56—E. M. Ransburg
2,759,763—8-21-56—J. W. Juvinall
2,759,764—8-21-56—R. C. Juvinall et al
2,761,544—9-4-56—H. A. Williams
2,764,125—9-25-56—J. W. Juvinall
2,764,712—9-25-56—J. W. Juvinall
2,769,728—11-6-56—J. W. Juvinall
2,770,210—11-13-56—E. P. Miller
2,777,784—1-15-57—E. P. Miller
2,780,565—2-5-57—R. C. Juvinall
2,781,279—2-12-57—M. R. Miller
2,781,280—2-12-57—E. P. Miller
2,784,114—3-5-57—E. P. Miller
2,785,088—3-12-57—E. M. Ransburg
2,788,081—4-9-57—E. M. Ransburg
2,794,416—6-4-57—J. B. Shepherd
2,794,417—6-4-57—W. A. Starkey et al
2,794,751—6-4-57—R. C. Juvinall
2,795,516—6-11-57—E. P. Miller
2,798,008—7-2-57—E. P. Miller
2,799,532—7-16-57—W. L. Smart
2,802,561—8-13-57—R. C. Juvinall
2,803,496—8-20-57—E. M. Ransburg
2,808,343—10-1-57—C. C. Simmons
2,809,128—10-8-57—M. R. Miller
2,809,902—10-15-57—E. M. Ransburg
2,812,269—11-5-57—E. M. Ransburg
2,839,425—6-17-58—J. W. Juvinall
2,842,460—7-8-58—J. W. Juvinall
2,859,701—11-11-58—H. A. Williams
D-173,073—9-21-54—J. C. Marsh et al

It is further stipulated that defendant had at the date of expiration a license, with a right to sublicense, under each of the following United States patents:

RE 22,419	2,097,233
2,047,525	2,221,338

has a license with a right to sublicense under United States Patent No. 2,548,477; and as of September 26, 1944, entered into an agreement with Behr-Manning Corporation to which a schedule was attached listing the following United States patents (or the applications which matured into said patents), under which defendant nominally had a
871 license with a right to sublicense, which license in fact and in law may have conferred no rights upon the defendant because of the limitations upon the license grant in said agreement:

RE 20,660	2,174,328	2,318,570
1,854,071	2,217,126	2,318,571
2,027,087	2,218,445	2,328,577
2,027,308	2,222,539	2,356,489
2,027,309	2,223,476	2,370,636
2,082,182	2,231,324	2,371,605
2,087,260	2,245,301	2,376,342
2,152,077	2,248,064	2,376,343
2,166,385	2,248,853	2,376,922
2,173,032	2,279,361	2,447,374
2,173,078	2,281,558	2,463,241
	2,287,837	2,463,242

Howard W. Clement,
Attorneys for Defendant.

Receipt of two (2) copies of the above Stipulation Regarding Patent Rights of Defendant is acknowledged this 24th day of November, 1958.

Charles F. Meroni,
Attorney for Plaintiff.

2 UNITED STATES DISTRICT COURT.
(Caption—56-C-262)

Be It Remembered, That in the United States District Court for the Southern District of Indiana, Indianapolis Division, at the United States Court House in the City of Indianapolis, Indiana, on the 15th day of December, 1958, at 9:10 o'clock A. M., CST, the above-entitled cause came on for trial before the Honorable Cale J. Holder, Judge of the said Court, and the proceedings had upon the
3 trial are in the words and figures following, to-wit:

• • • • •

7 The Court: Now, Mrs. Hadley, I am tendering to you a motion of the plaintiff dated November 15, '58 which you will prepare an entry on. It has been withdrawn this date by the plaintiff.

The next matter we have here, gentlemen, is a motion
8 by the plaintiff for an order to compel compliance with Paragraph 5 and 6 for order of production of documents under Rule 34 or in the alternative to produce papers and records claimed to be privileged for the Court's determination. This motion was filed November 14th also.

Mr. Meroni: That's right, your Honor. This is still pending.

The Court: I will hear your argument on that.

Mr. Meroni: All right, your Honor.

The Court: I have gone through your briefs.

Mr. Meroni: I am advised by Counsel that he has here the papers that are in dispute and he is willing to tender them to the Court for the Court to determine whether they are privileged, and that would be the motion. Our motion was to have them produced so the Court could determine whether or not they were privileged.

The Court: I don't know that that would quite level it

off. Your motion is in the alternative. First you put it square up. You have a motion for production.

Mr. Meroni: That's right, your Honor.

9 The Court: Do you want to withdraw that and leave it stand on your alternative motion? Your alternative motion is they be produced and shown to the Court in camera.

Mr. Meroni: I think I will withdraw the original motion for expediency and rely on the alternative one, your Honor.

Mr. Hume: That is based on the defendants voluntarily offering to present these papers to the Court and we tender them at this time, your Honor.

The Court: Mrs. Hadley, the first segment of this motion of November 14th by the plaintiff entitled "Motion for order to compel compliance with paragraphs 5 and 6," I will give this to you in a minute here.

The Clerk: All right.

The Court: Of the order for production of documents under Rule 34 that has been withdrawn.

Mr. Meroni: That's right, your Honor.

The Court: Let the record show, then, in connection with the alternative motion of November 14th the defendant now tenders—and I wonder if we shouldn't just have that identified by the Reporter here at this time as an exhibit.

10 (The Defendant, for purposes of identification, handed the Reporter a certain document for marking, and which was by said Reporter marked Defendant's Exhibit 1 in 42 pages.)

Mr. Hume: The record may show this as a group of documents that have been held together with a clip. They are all here, the type we have in the categories requested.

The Court: Exhibit 1 consists of 42 pages and you have initialed each page, Mrs. Liggett?

Mrs. Liggett: Yes.

The Court: Gentlemen, I wonder if it would not facilitate matters if I deferred ruling on the alternative motion until recess. Will you need the exhibits in the meantime?

Mr. Meroni: No, we do not need those until we reach our anti-trust case.

The Court: I will attempt to handle that on recess.

* * * * *

71 The Court: All right.

Gentlemen, during the recess I have reviewed the Exhibit 1 which was tendered by the defendant here voluntarily on the issue of the motion, the alternative motion pertaining to the production of documents there under the Rule 43 and the objection of the defendant thereto on the ground they were privileged. And the Court concludes that the exhibits tendered, the exhibit tendered consisting of 42 pages, are privileged communication between Counsel and the defendant and the motion for production is overruled. In this connection, however, I would call upon the defendant to assert of record in good faith that the tendered exhibit comprises the entire record of communi-

72 cations requested by the motion.

Mr. Hume: We make that representation in good faith, your Honor.

The Court: All right, sir.

* * * * *

226 DR. EMERY P. MILLER, a witness called by the defendant, being first duly sworn, testified as follows:

Direct Examination by Mr. Hume.

* * * * *

240 Q. Have you any knowledge as to what the correct size of paint particles is in the matter of producing a satisfactory coating of commercial painting?

A. For a satisfactory coating on an object like a refrigerator, for example, the particles would have to be of the order of approximately three mills or three one-thousandths of an inch in diameter.

Q. And are such particles produced by the compressed air type of gun that you have described?

A. In a compressed air type—in the spray produced by a compressed air gun that would be particles of that size and distributed above and below that.

Q. How much of a range can one tolerate in conducting a painting operation with respect to the particle sizes?

A. Generally I don't think that you would want to go much above possibly two or two and a half times as large as that, and certainly you wouldn't want to go much smaller than one-third that size. If you did you would obtain dry spray if the particles were quite small. If you went into the large side you would obtain what is known in the trade as orange peel or roughness of the finished
241 surface.

Q. Is the roughness that you have referred to productive of a satisfactory coating in commercial operations?

A. Generally speaking that is not—a large amount of this orange peel or a large amount of this roughness is not a desirable feature.

* * * * *

252 Q. Now, Dr. Miller, will you please refer to Exhibit No. 7 and tell us first what the coloration is on the drawing and what the significance of the coloration is?

A. This coloration has been added, as I understand it, to make the various components of this system stand out more clearly. The orange coloring is to represent the conveyor or the handling device for the parts, which are blue.

The green is added to show the high voltage supply and the conductor of the high voltage to the electrostatic
253 field which is also at high voltage. The yellow also represents the paint or fluid supply system. The brown is the air system. That is the atomizing air system.

The violet or purple is the air operating system which retracts the triggers or the valving mechanism of the gun. I believe those are the colors which are shown on this drawing.

The Court: You haven't named the color of the gun.

The Witness: It is red, sir.

Q. Now, you said this Exhibit 7 is a reproduction of a drawing in one of the bulletins of the Ransburg Company. Was the coloring on the drawing in the bulletin?

A. The coloring was not on the drawing in the bulletin.

Q. That has been added for visual aid in this suit, has it not?

A. That is correct.

Q. Now, will you proceed to describe what is shown in Exhibit 7 and tell us how it works, please?

A. This is a representation of a typical No. 1 electrostatic spraying process in which a pneumatic type gun or guns are used to break up the material and the electrostatic fields are used to precipitate that liquid on the objects to be coated.

254 In this particular arrangement the entire system is housed in an enclosure which is intended to confine

the spraying operation. The parts are hung on the conveyor by means of attachment hooks and part of that attachment hook is a spinner or rotating device. As the part moves into the enclosure, it makes a righthand turn and comes out toward the open front of the enclosure and that open front of the enclosure is diametrically opposed to the exhaust plenum chamber which is at the back of the enclosure and which, in turn, is connected to the stack part.

Inside of the enclosure there is located an electrode system which is designated as D. That system consists of a series across which is stretched a series of fine wires and it is located in this particular exemplification of it on the two sides and bottom of the article as the articles are carried through the spray zone and that area immediately below the conveyor, there is a rub rail "T" which is arranged to contact the rotators on the conveyor, and thus by virtue of the motion of the conveyor, the parts are set into rotation as they are carried across that particular portion.

Now, if the articles have been carried into the enclosure, then there exists between the articles and the electrode system a space, and by virtue of electrically connecting the voltage supply, G, by way of conductor, H, to the electrode system, there may be maintained across that space an electrostatic field. In other words, the conveyor is charged to a high potential and the articles on the conveyor are at ground potential so there is a difference in potential between the two parts.

The guns are positioned at the exit end of the enclosure and are arranged to introduce the coating material into the space which exists between the electrode system and the articles on the conveyor. As mentioned previously, those guns are arranged to be remotely operated by a valve end. Triggering the valve, pulls back the trigger

and allows the coating material to flow out of the gun simultaneously with air and breaks the paint up into a spr .y or mist and the impulse imparted to that mist by the air flow carries it into the space between the electrode system and the article on the conveyor.

When thus introduced the particles become charged electrically to the same potential, the same electrical
256 potential.

Under the interaction on the charge off the electrode and the charge on the particles, the particles are pushed away from the electrode system and attracted to the object on the conveyor, so that instead of being carried by the air blast, they will now experience a force toward the articles on the conveyor and obviously, under that gross attraction of the article for the particle and for the repulse of the electrode system for the particle, they will accumulate on the object to a greater extent than would be possible by ordinary mechanical spraying methods.

The rest of the equipment on the diagram, the container, O, is the paint pot to which air pressure is applied raising the paint up through the yellow line to the fluid regulator, and that is the regulator which is of the diaphragm type in this particular illustration which is to control accurately the flow of the paint to the gun.

As I mentioned, the purple line is the operating air line which is simply high pressure used to retract the needle in the gun and allow paint to flow.

The electrical equipment, electrical controls located in this picture, this is actually a housing for relays and
257 other type of electrical equipment which is activated by the buttons when one wants to stop or start or turn on or off the electrostatic field in this case.

* * * * *

263 Q. Is there an electrostatic field in existence in Exhibit 7 when it is in operation?

A. There is, sir. There is an electrostatic field.

Q. Where is it, please?

A. It exists in the space between the electrode system and the object. Electrically this system you might visualize as coming from the ground through a visual source of voltage which is the transformer as the secondary, through a tube or valve tube which is essentially a two-element tube that acts as a rectifier, comes out to the high line and is applied to the grid system, and at that point if nothing else could happen the electrical voltage would build up on the grid and stop. That would be the end of it.

And by virtue of that induction there then appears on
264 the can the opposite potential by virtue of the fact that they are now connected to ground, the same ground as the other side of the pack, through the conveyor and its support hook. So that you have that circuit, ground, transformer, electrode system, space, can, pack, conveyor, ground. That is your circuit which represents electrically the circuit you are talking about, and the opening or the space in that circuit is the space across which you build up electrical potential or electrostatic field.

Q. Are there any lines of force in that electrostatic field?

A. There are, sir.

Q. And they extend from where to where?

A. Such lines of force would extend from the electrode system to the article on the conveyor.

Q. Can you be a little more specific in your reference to the electrode system? Exactly what element in this illustration of Exhibit 7 do you refer to when you say "electrode system"?

A. The electrode system itself would be the element which is designated as D. That is a framework on two sides and the bottom of the path of the articles on the
265 conveyor, and including the small wire elements. They

are necessary to produce a particular type of electrostatic field, namely, a charging field, so that these particles which are originally introduced as uncharged particles will become charged.

Q. Is the frame element a part of the electrode system?

A. The frame element is a part of the electrode system.

Q. Now, with respect to the electrostatic field and the lines of force in the field, how in relation to that is the paint projected by air guns?

A. In this particular situation the field would extend from the electrode system, extend along the small wires of the electrode system. I visualize it as originating there and extending to the surface of the article on the conveyor. The paint is introduced generally perpendicular to that extension and parallel to the path of travel of the article on the conveyor.

• • • • •

273 (By Mr. Hume.) I will show you the Exhibit 8-A which is the drawings 1 to 6 of the patent in suit '536 and ask you if you are familiar with that disclosure.

A. Yes, I am, sir.

Q. Will you tell us what that is, please?

A. This is a reproduction of the drawings which appear in a patent application filed by Al Starkey and Ed Ransburg and is intended to show certain modifications, some of which were conducted, some of which were not conducted, to illustrate the invention which they put forth in this particular patent.

Q. Do you understand how it works?

A. Yes, I do, sir.

Q. Would you please explain it to the Court?

A. In this arrangement it was part of our effort as we went along in development to get rid of the troublesome troubles which arose in the No. 1 process from having air in the whole picture and in the system, and this was a de-

vice invented primarily to allow the electrostatic field to be the only agency which would be responsible for the breaking up of the coating material, the driving of the coating material from the atomizer to the object and for precipitation of that material on the object.

* * * * *

299 Q. In the Starkey-Ransburg Patent in suit, as represented by Exhibit 8-A and Exhibit 8-B respectively, what is the characteristic of the feeding of material to the atomizing zone?

A. Well, that is a regulated supply, wherein the material is fed to the atomizing zone at a controlled rate, which rate is the same as the rate at which the field takes that material away.

Q. And as to the extent of the atomizing zone.

A. The extent of the atomizing zone, of course, is distributed throughout the area where that liquid is fed to, and is generally an extended, stretched out arrangement, so to speak.

Q. What is the fact as to whether the entire cross-section, we might say, of the field at the atomizing head end of the field is supplied with paint or coating material?

A. Well, under these circumstances the entire field will have injected into it or will pick up from the site of
300 atomization particles of coating material and thus the entire field between the object and head, for example, as shown here in Fig. 1, will be filled or saturated, so to speak, with the small particles which originate at the site of atomization.

Q. What effect, if any, does this have on the character of the coating that is applied to the article being painted?

A. Well, obviously, this would result in a uniformly distributed deposition of these small particles over the surface of the object being painted.

301 Q. What would be the shape and size of the pattern of the application of the paint that was so distributed?

A. The shape and size of that pattern would be many times larger than the shape and size of any one individual atomization site.

Q. How would the shape and size of the pattern compare to the shape and the size of the article that was within the influence of the field?

A. That would be comparable to the size of the article actually. If the article had a field which completely covered it, the pattern would be again the size of the article or the size of the field.

Q. How about the shape?

A. The shape of it would be the same as the shape of that.

Q. Is there any wraparound effect occurring in the operation of the No. 1 type of system?

A. Yes, sir.

Q. Is that different from or the same as the wraparound you have talked about in connection with the patent in suit?

A. In the case of the wraparound which is effected by the No. 1 process, that wraparound which is created by the electrostatic field, you have basically the same elec-
302 trical phenomena except in the case of introducing the spray into the field, you have the problem of getting the particles on to the lines of force so that they then can obey the dictates of those forces and wraparound on the back surface of the article, whereas in the Starkey case they actually originate at the site of atomization, at the point of origin of the field, and are automatically, so to speak, predestined to follow a line of force.

304 Mr. Hume: I will ask the Reporter if he will please mark this physical exhibit as Defendant's Exhibit No. 9 for identification.

(The defendant, for purposes of identification, handed the Reporter an object for marking, and which was by said Reporter marked Defendant's Exhibit No. 9.)

Mr. Hume: And I will ask the Reporter to kindly mark the four photographs which I now hand to him as Defendant's Exhibits 10-A, 10-B 10-C and 10-D respectively for identification.

(The defendant, for purposes of identification, handed the Reporter four photographs for marking, and which were by said Reporter marked Defendant's Exhibits Nos. 10-A, 10-B 10-C and 10-D.)

Q. Dr. Miller, I will ask you if you will examine Defendant's Exhibit 9 and tell me, if you know, what it is?

A. Yes, this is the device which was built in our laboratory to effectively reproduce a showing of the patent, Starkey Ransburg patent.

Q. As represented in what drawings of what exhibit?

A. This was an effort to take—

Q. (Interposing.) What are the numbers of the figures?

305 A. Figure 5 of Exhibit 8-A, and attach that type of head to a handle such as shown in Figure 3 of that same exhibit.

Q. Well, now, would you tell us how that is made, please?

A. This was made as near as possible to the scale of this drawing and this particular device is made by taking a container and threading in an inserted fashion into the bottom of that container the spaced cylindrical pins, and openings have been provided between each of the pins at the base where they are attached to the container in order to

effectively simulate a situation such as shown in Figure 5 of Exhibit 8-A.

Q. Did you have anything to do with the construction of that device? Was it done under your supervision?

A. Yes, it was done under my supervision.

Q. Now, do I understand that those pins are screwed into a plate?

A. Yes, whereas in the case, the patent described then as being cylindrical pins which are compressed between the side walls of the container and the central separating wall and it becomes more easy to make it in this fashion. The machining of it is easier if done in this manner, so here each of the pins are screwed into the bottom 306 surface of the triangular container.

Q. Do these differences that you have pointed to involve any fundamental differences in construction?

A. No. Fundamentally this is a construction which was very closely or would very closely approximate the one shown in Figure 5.

Q. Would it in any way affect its operation as far as you can see?

Mr. Meroni: Objected to as leading. The exhibit speaks for itself.

The Court: It would be leading, would it not, sir? I will sustain the objection.

Mr. Hume: All right, Your Honor.

Q. Would you compare, as far as you are able to, in your judgment the operation of the device you hold in your hand and the one shown in Figure 5 and Figure 6 of Exhibit 8-A?

A. The operation of this device which I hold in my hand and which is designated as Exhibit 9 would in all essentials be the same as the operation of the device shown in Figure 5 of Exhibit 8-A.

Q. Does the device which has been marked for identifi-

cation as Defendant's Exhibit No. 9 have any relation
307 to the device that was demonstrated to the Court on Monday of this week in connection with this suit?

A. This is the identical device which was shown at that time.

Mr. Hume: Your Honor, I offer Exhibit No. 9 into evidence.

(DEFENDANT'S EXHIBIT NO. 9 offered in evidence by Mr. Hume.)

Mr. Meroni: Objected to as being insufficiently proven, not being the best evidence, as not corresponding to any disclosure made, any disclosure in the patent and is immaterial and irrelevant.

The Court: The objection will be overruled. Exhibit No. 9 is admitted and exhibited into evidence.

* * * * *

312 Q. I am going to hand you four photographs which have been marked for identification as Defendant's Exhibits 10-A, 10-B, 10-C and 10-D respectively, and ask you to tell us what they are, if you know.

A. Exhibit 10-A is a photograph of the device which has just been exhibited as Exhibit 9—side view, I might add.

Exhibit 10-B is a photograph of the end view of the atomizing head of that device. Incidentally, that photograph is enlarged over the original device itself.

Exhibit 10-C is a side view of that same atomizing device of Exhibit 9, and it also is slightly enlarged.

And Exhibit 10-D is a side view of that same device in operation showing the flow of the coating material
313 down the spaces between pins, the formation of the streamers and the atomization of the coating material out the end of those streamers under the influence of the electrostatic field.

Q. Incidentally, I don't think it has been mentioned here in this case,—what kind of current is used in the Starkey process and apparatus in suit, with respect to whether it is direct or alternating current?

A. It is direct potential and consequently will be direct current, as indicated in Figure 9 of Exhibit 8-B. There is shown there a transformer and then a rectifier tube indicating that the alternating current would be converted to direct potential.

Q. Will you explain for the benefit of the record what we mean by static electricity as compared to other forms of electricity?

A. Static electricity basically means electricity at rest. It has come to us in the art primarily from early history where the type of generation of static electricity was produced by rubbing amber and so forth with various materials, and so you had the possibility of charging bodies in space. You insulated them and put an electrical charge on them, and that charge existed as a static charge or
314 remained there. And it was called static because it appeared to remain at rest in one place as opposed to the kind of charges which you experience from dry cells or batteries where they flow through wires and light bulbs and that sort of thing. And that has been carried over in the art to designate any type of voltage condition where you have a charge placed on an object and that charge essentially remains intact with very little leakage.

Now, we know today, of course, that it is impossible, and was impossible even for the people of past history, to maintain a pure situation of static electricity because there were always conditions where the charge could leak off. It could flow down insulators or if the day was damp it might flow off the ground through the air. So that you have these small currents existing. And that same type of current exists here, even though we say we maintain a

static charge on the atomizing head. The fact that you have no electrical conductor, in the common usage of the word, between the atomizing head and the object, you have a very low current flowing across there. And we still call that a static situation, of course.

Q. Now, will you direct your attention once more to the Exhibit 10-D, which is the photograph showing the
315 paint flowing? How does this compare with what was demonstrated to the Court last Monday?

A. This is actually a photograph of a similar occurrence to what we saw at the demonstration.

Q. Does it differ in any way from what was demonstrated to the Court?

A. No, it does not.

Q. Is there any evidence here of the action of the force being exhibited on lines of force?

A. This was taken, of course, with the high voltage applied between the device and the article being coated and, as we noted here, the coating material actually becomes the furthermost part of this atomizing device once it is in operation, and becomes the electrode itself from which the field originates. And under the action of that field, which basically in this case is originating at the end of each of these streamers, these streamers are broken up into small particles which are evident on the picture and are projected into the field as small atomized paint particles.

Mr. Hume: Your Honor, I offer these exhibits, 10-A, B, C, and D.

(DEFENDANT'S EXHIBITS NOS. 10-A, 10-B, 10-C and 10-D offered in evidence by Mr. Hume.)

316 Mr. Meroni: Your Honor, I object to these exhibits as being immaterial, irrelevant and as being insufficiently proven. I further object to 10-B as embracing an

ex parte test or showing and as not being the best evidence.

The Court: Does your objection include the authenticity of the instruments—I mean, of the exhibits? Do we need to produce the photographer?

Mr. Meroni: I don't question that they are photographs of this device, Your Honor. Actually they are redundant, that is, Exhibit 10-A, B and C, because we have the device here. But 10-C which purports to show some action is some ex parte action that we weren't a party to, and I didn't see this when it was being done, and I object to it as not being good evidence.

The Court: I understand that you have no objection then to the authenticity of the four documents, and will not require the production of the photographer or the developer.

Mr. Meroni: That's right, Your Honor. That is not the ground of my objection.

The Court: What do you say about the objections?

317 Mr. Hume: Your Honor, this demonstration was made for the benefit of the Court. This witness is testifying here from his knowledge of this invention. He has testified that this exhibit, this model—that is Exhibit 9—was made inasfar as could be practical according to Figures 5 and 6. The exhibit is here to be witnessed by everybody. And the performance was demonstrated to the Plaintiff's counsel and to the Court, and this is to preserve the action under the testimony of this witness that was demonstrated.

Whatever objection he may have may run to the weight, but I don't think it runs to the admissibility.

Mr. Meroni: Do you contend, Mr. Hume, as to 10-C I actually saw this spraying when this particular picture was taken?

Mr. Hume: Well, I invited you to see it.

Mr. Meroni: I mean when this picture was taken.

318 Mr. Hume: No, you did not. The witness has testified it is the same activity and it is made on the same head. Now, this witness' oath is behind the similarity here, and there is no objection to the photograph itself.

The Court: You are referring to 10-D, aren't you? You have been referring to 10-C.

Mr. Meroni: Yes, Your Honor. I will withdraw my objection as to 10-A, B and C. My fundamental objections that I advanced in connection with Exhibit 9, of course, are preserved, Your Honor, and I assume that you would adhere to your previous position in overruling my objection in that respect as to these photographs, their merely being photographs of this same device. But I do insist on my objection as to 10-D on a different basis, and that is that it purports to show some action which was conducted when I wasn't there.

The Court: The objection will be overruled then and Exhibits 10-A, B, C and D are admitted in evidence.

* * * * *

373 Q. (By Mr. Hume.) Dr. Miller, have you had a drawing prepared to illustrate the system known as the No. 2 System of Ransburg employing bells?

A. I have, sir.

Q. I will hand you an exhibit marked Defendant's Exhibit 17-A for identification and ask you if that is the drawing.

A. This is the drawing.

Q. What does it illustrate?

A. It illustrates the elements involved in a typical installation of the No. 2 rotating bell system.

Q. How does the illustration contained in the drawing compare with the bell type of No. 2 system which was demonstrated to the Court on Monday of this week?

A. This system shown here would be essentially one half of the system which was shown in the demonstration; the other half being employed for the purpose of coating the opposite side of the panel. This certainly would be, however, an illustration of one half of the system which was used for coating one side of the panels.

Q. Would you explain the operation of the system shown in 17-A to the Court, please?

A. In this particular type of system the atomizer or the atomizing bell, as it is referred to here in Exhibit
374 17-A, consists of a bell shaped member or funnel type member which is mounted on a hollow shaft and arranged to be rotated by a motor so that the bell itself can be set into rotation about its central axis.

The bell, or in this particular showing a group of three such bells, are mounted in spaced relation to the blue article on the conveyor. Here again the bells are shown in red and the conveyor, as indicated here, in orange. They are spaced from the article on the conveyor in order to provide the space in which the electrostatic field will be eventually established. They are mounted on an insulated support so that they can be charged to a high potential by virtue of the power pack which is shown in green in this exhibit, so that the power pack when connected to the bells will establish the field that I spoke of between the front edge of the bells and the work on the conveyor.

Coating material is taken from a suitable supply, shown here in yellow, passed through a pump whose speed can be controlled so that it will be delivered to each of these bells individually at a controlled rate.

The operation of the whole mechanism is controlled
375 by means of remote push button stations, the control panel and the other electrical elements shown in this exhibit.

Now, the operation takes place in the following manner: the bells are set into rotation. The high voltage supply is energized so that they are placed in high voltage relationship with respect to the article on the conveyor. The pump is then started so that the coating material will be delivered at a controlled rate to the back end of the hollow shaft, to be carried through that hollow shaft and eventually exit on the internal surface of the rotating bell. The rotation will spread that around on the internal surface into a thin film and feed it into an extended distributed atomizing zone around the front sharpened edge of the bell.

The field then takes over and the particles are atomized and follow the lines of force across the space onto the article to be coated.

Q. Now, with respect to a single bell, is there an electrostatic field established?

A. Yes, there is an electrostatic field established from the front annular edge of the atomizing bell to the article on the conveyor.

Q. How is the paint presented to the electrostatic 376 field? In what form is it?

A. The paint is presented to the electrostatic field in the form of a thin, uniformly distributed film around the edge of the bell.

Q. And what causes the atomization of the paint?

A. The electrostatic field.

Q. Is there dispersion and conveyance of the paint?

A. Yes, there is dispersion of the paint and there is conveyance of the paint from the surface—from the edge of the bell to the article on the conveyor. And that is all accomplished by this electrostatic field, this single electrostatic field which exists between the two articles, the bell and the article on the conveyor.

377 Q. Is there a deposition of the paint?

A. It is deposited on the article by the action of the field.

Q. Taking any one bell, how many fields participate in that functioning of the atomization, dispersion and deposition?

A. Taking any one there is a single field that causes the atomization, dispersion and deposition of the coating material coming from that particular bell.

Q. How is the paint fed to the bell?

A. Paint is fed to the bell by a pump whose delivery is dependent upon its speed and whose speed is carefully controlled so you deliver paint to the bell at a controlled rate.

Q. What would be the fact as to whether the paint is fed when the electrostatic field is off and say the rotation of the bell is stopped?

A. The effect would be that the coating material fed to the bell under circumstances of no rotation, no electrostatic field, it would run out of the center orifice of the bell and down across the surface of the bell and drip to
378 the floor under the influence of gravity.

Q. What force feeds the paint from the time the paint enters the bell to the edge that you spoke of?

A. Now the rotation is responsible for the thinning out of the film and the carrying of that film from the orifice at the center inside of the bell to the outside edge.

Q. I asked you what force. Did you name the force?

A. That would be the centrifugal force.

Q. What would be the character of the shape of the paint material on the edge of the bell during atomization activity with the field on and rotation on?

A. The character of that coating material would be that it would exist as streamers extending outward from the edge of the bell and those streamers would be con-

tiguous liquid from the liquid on the surface, through the cusp or pyramid type of streamer to the end of that streamer and at that point the field has its origin and the coating material would be broken up into small particles and be distributed into that field and as we said, dispersed and deposited on the article.

Q. What would be the disposition of the paint ma-
379 terial between adjacent cusps?

A. There would be coating material existing in a curved surface type of arrangement from one cusp to the other.

Q. What is the economy of operating a system such as shown in 17A with respect to the paint that is sprayed?

A. In an arrangement of this type, essentially all of the coating material which leaves the atomizing device and therefore the coating material which leaves the pump or the source, all of that coating material, is deposited or collected on the article being coated.

• • • • •

380 Q. I now direct your attention to the drawing, 17B, and ask you if that is a drawing you had prepared to illustrate a Ransburg System?

A. This is a drawing which I have prepared to illustrate our reciprocating disc type No. 2 System.

Q. Tell us what 17B shows.

A. It shows the element of the typical reciprocating disc units as they are incorporated generally for a production operation. Actually, the parts on the conveyor have been left off in this circumstance in order to make the elements completely visible in this particular situation.

Q. Where would the articles to be painted appear on this drawing if they were shown?

A. They would be attached to the pendants which extend down from the orange conveyor and the conveyor passing in a loop around the atomizing disc, which is the

essential heart of the equipment, so to speak, and they would automatically preclude our seeing into that loop if we did not remove them from the conveyor as we have done here. It is also evident that some of these elements may be more or less far removed from the operation specifically, but in order to get them all in one drawing we have arranged them as we have in this particular situation.

382 Q. How does the disclosure Defendant's Exhibit 17B, compare with the reciprocating disc installation that was demonstrated to the Court last Monday?

A. This is essentially that type of a unit.

Q. The reciprocator is mounted on the floor in 17B, is it not?

A. That is correct, and in the demonstrations they were mounted overhead. Now that is a matter of convenience.

Q. Does that affect any difference in the operation or function?

A. No, it does not affect the operation or function of the equipment.

Q. Now, in this installation, 17B, is there an electrostatic field established?

A. Yes, there is an electrostatic field established by the power supply which is shown in green here, being connected to the red disc, atomizing disc and there would be an electrostatic field established between the disc element and the articles on the conveyor.

Q. How many fields are created?

A. In this particular case there would be one field created between the one disc and the numerous ar-
383 ticles on the conveyor as the loop was filled.

Q. What does the atomizing in the installation of the type represented in Exhibit 17B?

A. The electrostatic field.

Q. What does the function of the rotation of the head or disc, as it is called?

A. The rotation of the disc is for the purpose of taking that material which is introduced to the hollow shaft and exists at the center of the disc, taking that material and spreading it into a film over the surface of the disc and conducting or conveying that film, while in contact with the disc, to the outside edge of the disc.

Q. Did you see, on the occasion of the demonstration to the Court, the action that occurred when the rotation of the disc was discontinued but the electrostatic field remained on?

A. I did, sir.

Q. What happened?

A. Since the disc was mounted from overhead, and the coating material fed therefore at the top of the hollow shaft, the coating material ran down through the
384 hollow shaft, and, so to speak, just ran out of the center orifice onto the floor directly below the center of the disc.

Q. Can you explain why no atomization occurred at that time?

A. There were basically two reasons. There was no feeding of the liquids from the center orifice to the outside edge of the disc and no distribution of that material over the surface of the disc because there was no rotation, and in addition, the field was not on, so that there obviously was no atomizing force,

Mr. Meroni: I move to strike the last part of the answer because the question was based on the atomizing field being on and the witness now qualified it by saying the field was off and my recollection is the field was on.

Q. My question, I am sorry, was supposed to be related to the situation where the rotation was discontinued but the electrostatic field remained on.

A. In the case where the electrostatic field was on,
385 and the rotation was stopped the coating material still ran out of the center orifice and collected on the floor below the disc, ran out in the form of a stream.

Q. Now, I would like to know under those same circumstances, why that occurred and why there was no atomization?

A. It occurred primarily because there was no centrifugal force to distribute the film to the atomizing zone around the outside edge of the disc.

Q. When there was no feeding of the material to the edge, due to the disc being stationary, where was the electrostatic field in that arrangement?

A. The field was between the edge of the disc and the articles on the conveyor.

Q. And under such circumstances where is the atomizing zone?

A. There would not be any atomizing zone.

Q. Where must you put the paint to present it to the atomizing zone?

A. You would have to put it at that edge of the disc where the field originates.

Q. And what happened when the paint did not get to the edge by virtue of the disc being stationary?

A. Under those circumstances, the field would not act on it and would not atomize it.

* * * * *

389 Q. Now, are there—I withdraw that.

Is there any response in the system of Exhibit 17-A which is brought about through the action of what we have called "lines of force" here?

A. By "response" what do you mean, sir?

Q. Is there any behavior there that is dictated by what we have called "lines of force" in this?

A. The behavior which is dictated would be the behavior of the particles which are formed at the liquid surface as it is presented to this field; namely, the surface would be drawn out into liquid streamers and from the end of those streamers you would have particles formed, atomized particles, which would be introduced and distributed into the field; would be directed by that field toward the article and would be deposited on the article.

Q. What would be the situation with respect to the various lines of force throughout the whole entire edge of the bell? Would the action be the same or different?

A. The action would be the same throughout every length of the—for every unit length of the bell circumference.

Q. You stated there were streamers that would be formed on the edge of the bell shown in the Exhibit 17-A.

What is the fact as to the formation of the paint on 390 the edge of the disk in the device of 17-B?

A. The same situation would be existing. There would be streamers formed at the edge of the disk which would extend out into the space immediately adjacent that edge, and those streamers would be formed by the field and atomized particles required for painting would emanate from the end of those streamers.

Q. With respect to 17-A is there any compressed air involved in its action?

A. No, there is no compressed air used in 17-A.

Q. How about the device of 17-B?

A. There is none used in the device of 17-B.

Q. I mean in the atomizing action; I don't mean in the operation of some valves or other.

A. That is correct. There is none in connection with the atomizing action.

Q. Now, I will show you another drawing that is marked 17-C and I will ask you if that is a third drawing that was

prepared by you to illustrate one of the Ransburg airless type of systems.

A. Yes, this is such a drawing that I had prepared to illustrate a stationary rotating disk-type unit in which the disk is tilted. I mean by "stationary" it is not
390 reciprocated but permanently mounted on a stand of fixed height.

Q. Without duplicating any reference to the parts that are similar in the two illustrations, Exhibit 17-B and 17-C respectively, would you just tell us what is shown there and compare it with the system of 17-B which you have already described.

A. In 17-C the elements are essentially the same as those shown in 17-B with the exception of the fact the disk or—atomizing disk and disk rotator are mounted on a support of fixed height and therefore—as opposed to being mounted on a reciprocating mechanism as shown in 17-B. As indicated, this disk can be mounted from above or below. In the dotted figure it is shown as being mounted above. In the full figure it is shown as being mounted from below. Now, the disk is tilted basically to increase its pattern or the width of the pattern which it can apply to the surface of the articles that are carried around the loop.

Q. What would be the characteristic of that disk with respect to the streamers you have talked about in connection with the other disk in Exhibit 17-B?

A. This disk would function, as far as the formation of the streamers are concerned and the action of the
392 field on the formation of those streamers and atomization of the particles, it would function in exactly the same sense as that one shown in 17-B.

Q. Your answer was addressed to the showing in Exhibit 17-C?

A. That is correct, sir.

Mr. Hume: Your Honor, I offer in evidence the drawings that have been marked for identification as Exhibit 17-A, B and C as Defendant's 17-A, B and C.

(DEFENDANT'S EXHIBITS 17-A, 17-B and 17-C offered in evidence by Mr. Hume.)

Mr. Meroni: Object to them as being immaterial, irrelevant, incompetent because the Starkey, et al. Patents in suit presumably are concerned with the establishment of electrostatic deposition by the use of a field alone and are not concerned with electrostatic depositions making use of additional means such as air or rotary impellers.

Mr. Hume: Your Honor, there is no air here. The witness has testified to that.

Mr. Meroni: These are rotary impellers; they are not embodiments of the invention.

Mr. Hume: The witness testified that the rotary
393 impeller is just a matter of forced feeding which is called for in the patent in suit and the atomization is the result exclusively of the electrostatic field, so that the plaintiff's position here—the defendant's position here is that these are embodiments, full embodiments of the invention of the patents in suit.

Mr. Meroni: If your Honor please, in arguing for the allowance of the Starkey Patent it was pointed out that the heart of the applicant's invention lies in the spray painting of articles of manufacture by the use of single electrostatic field which will both atomize a liquid coating, disperse the atomized particles, and deposit the particles on a surface to be coated. The demonstration of these machines clearly establish if you did not have the rotary feature the field in itself would not effect deposition on the articles.

Mr. Hume: Your Honor, the patents provide as a necessary step the feeding of the paint and necessarily the system will not function if the paint is not fed, and we have

used pumps in some of the systems as shown in the patent, and this system, we use a pump plus centrifugal force purely for feeding forced feeding. This witness just
394 testified it was a single field that was responsible for the atomization, dispersion and deposition.

The Court: The objection will be overruled. 17-A, B and C are admitted and read and exhibited in evidence.

* * * * *

395 Q. (By Mr. Hume.) I will ask you to hold in your hand Defendant's Exhibit 3 and 4 respectively and to take figure, or, Exhibit 3, if you will please, and turn to column four thereof in Claim 1 of the patent, this being the method patent No. 536, and I will refer to certain nomenclature and terms that are used in this patent and I will ask you whether or not in view of your understanding of this art and the meaning of these terms that are employed you find the elements which respond to the terms, and if so, point them out. First, I will ask you if in the disclosure of the method patent 536, Exhibit 3, a method is disclosed for electrostatically distributing liquid as a coating.

A. That is correct, sir.

Q. Now, do you find there the step of supporting liquid coating material in spaced relation to the surface of the article?

A. Yes, that coating material is supported, referring to Fig. 8-A, along the front exposed edge of the atomizing head, 13, in Fig. 1.

Q. I am going to go back and ask you now to look at the plaintiff's system as it's been illustrated in Exhibit 11-A and ask you if that discloses a method for elec-
396 trostatically distributing liquid as a coating on an article.

A. It does, sir.

Q. Now, does that provide the step of supporting liquid

coating material in spaced relation to the surface of an article?

A. Yes, it does, sir, along the open or unrestricted edge of the atomizing head.

Q. In looking at the disk commercial system of the defendant, shown in Exhibit 17-B, and the bell type shown in Exhibit 17-A, does the disk type of 17-B show a method for electrostatically distributing liquid as a coating on an article?

A. It does, sir.

Q. How about 17-A?

A. It also shows such a system.

Q. And in the disk system of 17-B is there means for supporting liquid coating material in spaced relation to the surface of an article?

A. That is correct.

Q. What is the meaning there?

A. It means at the edge of the atomizing disk, the disk itself supports a film of coating material and in the case of the bell type in 17-A, that film of liquid is similarly supported by the bell on its inside surface.

Q. What determines the position of the article 397 being coated?

A. The location of the conveyor determines the position of the article being coated in this particular case.

Q. Is that true of the patent in suit, Exhibit 8-A?

A. That is correct, sir.

Q. What color is the conveyor there?

A. The conveyor is shown as orange and designated as "11" in Fig. 1.

Q. What is the color of the conveyor in 17-B and 17-A?

A. They are likewise shown as orange.

Q. Now, are the articles spaced from the supported paint in the plaintiff's system, as shown in 11-A?

A. Yes, the article is spaced from the point of support of the liquid.

Q. Now, I will call your attention to this language, "forming a spray by electrically atomizing such coating material from a plurality of points so closely spaced as to form substantially a continuous extended atomizing zone;" and first of all, do you find anything that responds to that in the disclosure of the method patent, 8-A?

A. Yes, such an extended atomizing zone is formed along the front edge of the device, 13, as shown as extending along its entire length.

Q. Now, would you find any response to the provi-
398 sion in figures 5 and 6 of Exhibit 8-A?

A. In figures 5 and 6 the extension would be along the length of the atomizing head again and would be along the length of the projections which are shown as 217 in the drawing.

Q. Now, does Exhibit 10-D bear any relation to what you have stated the conditions to be in the operation of figures 5 and 6 in Exhibit 8-A?

A. It does, sir, and the extended zone from which such atomization takes place is clearly shown on this picture.

Q. Now, do you find anything that meets that, or responds to that term, in the plaintiff's construction 11 in Exhibit 11-A?

A. Yes, in Exhibit 11-A that extended atomizing zone would be that zone which comprises the radiating dark lines in the figure 11-A as they extend outward from the red atomizing head.

399 Q. Looking for the moment at Exhibit 11-B, do you find anything there that illustrates closely spaced points distributed relative to the article's surface?

A. Yes, in so far as Figure 2 in Exhibit 11-B is concerned, there is shown there at least in part the type of thing which exists over the extended atomizing zone in this

device; and the black continuously colored extensions on the atomizing head are such atomizing points, plurality of points.

Q. Just as an expert in reading drawings, is there anything significant to the fact that there is space above and below these one, two, three, four, five streamers shown in the upper right-hand figure of 11-B, and only five are shown? Is there any significance to that in reading the drawing?

A. My conclusion would be that throughout that area the atomization or these individual points are distributed. It might well be interpreted that that is the end of it or it could be likewise interpreted that that would continue throughout the entire atomizing zone or the exposed edge of the disk emitter.

Q. Well, what would be the extent in length around the perimeter of the head or the appearance of the
400 streamers in relation to the opening that was provided by the spacer inside?

Mr. Meroni: I would like the record to show, Your Honor, that in presenting the question counsel pointed his glasses up and down across the two illustrations above Figure 2 on Exhibit 11-B.

A. It would indicate that the atomizing zone, the plurality of points, are distributed along the same area to which coating material is fed by virtue of the absence of the spacer—I'm sorry. I forgot what it is called technically.

Q. What is the fact as to whether there is anything to be found in the Exhibit 17-B to the language that I read about the points so closely spaced to form a substantially continuous extended atomizing zone, said points being distributed relative to the article surface?

A. In 17-B those points will be distributed around the edge of the disk, around its entire circumference, and cer-

tainly they would be distributed therefore with respect to the surface being coated.

Q. And what about the system of 17-A, the bell system?

A. Likewise the points would be distributed around the circumference of the front edge of the atomizing bell.

401 Q. Now, the claim continues with this language: "Electrostatically dispersing the discrete coating-material particles formed at each point of atomization."

Do you find any response to that in the patent system shown in Exhibit 8-A?

A. Yes, such dispersion is indicated by the small multiple streamers which extend out from the atomizing head and indicated at 17, I believe, in Figure 1 of Exhibit 8-A.

Q. What does the patent itself say, the specifications?

A. The specifications say that you need such dispersion and that you need spacing in which to allow that dispersion to take place.

Q. Do you find any response to that in the plaintiff's system illustrated in Figures 11-A and 11-B?

A. In Figure 11-B the dispersion which takes place at the end of the streamers certainly is shown as the dotted lines indicating atomized charged particles open up and spread as they pass out and away from the end of that discharge streamer.

Q. I think I said "figures." I meant to say "Exhibits" in my last question.

Do you find any response to that provision of the 402 claim in the system shown in Exhibit 17-B?

A. The actual showing in 17-B does not specifically show the existence of that dispersion, but such dispersion does exist in the operation.

Q. Where is it found in the system as operating and as represented by this drawing, that is, the system represented by Exhibit 17-B?

A. It is found to exist between the edge of the atomizing

bell and the surface of the article on the conveyor, as the article is carried past the atomizing bell in 17-A, and it is further found at the edge of the disk and between the edge of the disk and the article on the conveyor as those articles are carried around the loop in the modification shown in 17-B.

Q. Now, the claim says: "Electrostatically depositing such dispersed discrete particles and while still in liquid state on the article surface to form a finished coating."

Do you find any response to that provision of the claim in the system of Exhibit 8-A?

A. The intent of the patent shown in Exhibit 8-A certainly is to form a coating on the article, and the specification describes that the particles formed and dispersed
403 by the electrostatic field are deposited on the surface of the items, such as the blue can tin, as a film to form a finished film on the surface of the article.

Q. Do you find any response to that provision in the plaintiff's system illustrated in Exhibits 11-A and 11-B respectively?

A. Yes sir, there is indicated in the Figure 11-A that the article is being coated by the dispersed material emanating from the atomizing head, dispersing in the space and collected on the article being coated.

Q. Does that occur in the operation of the plaintiff's system as you have witnessed it to produce a finished coating which is still wet when it is deposited?

Mr. Meroni: Objected to as leading.

Mr. Hume: I will change the question.

Q. (By Mr. Hume.) What is the state of the liquid coating on the article as it is applied in the plaintiff's system as you have witnessed it in operation?

A. The coating material lands wet on the article.

Q. Is the deposition in a wet state of any significance in making coatings?

A. It is all important in connection with the applica-
404 tion of sprayed coating by virtue of the fact that a sprayed coating is the integrated result of the arrival on the article of many small discrete particles, and obviously if the first arrived particles were not in a liquid state when the second arrived particles sat down on top of them or adjacent to them there would be no opportunity for those particles to coalesce, flow out and form a continuous film which would be satisfactory for paint.

Q. Now, do you find any response to the electrostatically depositing dispersed discrete particles while still in a liquid state on the article in the Ransburg bell type of commercial device shown in Exhibit 17-A?

A. Yes sir, that is a system for producing finished coatings, and obviously, as I have mentioned, it is of necessity that the coating material paint arrive on the article in a liquid state so it has this opportunity to flow out and form such an acceptable painted surface. The same thing exists in the case of the disk device, 17-B.

Q. Now, the claim says: "Force feeding coating-material to the points of atomization at a controlled substantially uniform rate to maintain thereat a supply
405 of coating material for atomization."

Do you find any response to that in the plaintiff's patented construction shown in Exhibit 8-A—system, I should say.

A. In Exhibit 8-A the coating material is fed to the site of atomization by virtue of the hydrostatic pressure which exits to the differential and head through the containers 18 and the point of exit on the atomizing device 13, and it is significant to me, at least, that the containers are broken up into three containers so that the differential in that hydrostatic pressure will not be sufficiently great to allow any one portion of the head to get out of step with regard to any other portion of the head.

Q. Do you find any response to the provision I read about force feeding the coating material in the plaintiff's system as illustrated in Exhibits 11-A and 11-B?

A. It is indicated that there is a liquid coating material supply tube which in one of the exhibits, I believe, introduced, has a needle control. I am sorry, it's 11-B. It's the one here on the floor. Has a needle valve whose purpose is to introduce the coating material to this device at a controlled substantially uniform rate.

406 Q. Is there any response to that element or step in the bell type of commercial device of the Ransburg Company as shown in Exhibit 17-A?

A. In Exhibit 17-A the pump provides the control means whereby coating material is delivered at a definite rate.

Q. How about the disk type, Exhibit 17-B?

A. The pump likewise in that system provides such control.

Q. Then the claim continues to say: "Said atomization, dispersion and deposition all being effected in quiescent air by a single electrostatic field maintained between the supported coating-material and the article surface."

And before you answer that I would like to have you define for us, please, what quiescent air means to you.

A. In the sense of this specification, and from having read this specification, the term "quiescent air" would mean to me an absence of any air movement in the area between the atomizing device and the article being coated, which air would be responsible for carrying away from the process due to its excessive motion any particles from the atomizing device, or in their flight of those particles from the atomizing device to the article.

407 Q. Do you find any response to the provision that I have read in the patented system shown in Exhibit 8-A?

A. Yes, there is no indication of any air, compressed

air, any excessive air movement in the device shown in Exhibit 8-A.

Q. Well, I want to call your attention to the entire statement. It says: "Atomization, dispersion and deposition, all being effected in quiescent air by a single electrostatic field maintained between the supported coating material and the article surface."

A. Yes, my answer was only half responsive. There also exists in Figure 1 of Exhibit 8-A the single electrostatic field maintained between the supported coating material on the atomizing head indicated at 17 and the article on the support.

Q. Do you find any response to that provision involving the single electrostatic field and the quiescent air in the plaintiff's system illustrated in Exhibits 11-A and 11-B respectively?

A. Such a single electrostatic field exists between the atomizing head and the article being coated, and there is no evidence of any added air movement taking place in this device.

408 Q. Now, I am going to ask you to go back a minute to the provisions before where we talked about force feeding coating material, and I am going to direct your attention to the bell type of commercial system of the defendant shown in Exhibit 17-A.

What are the provisions there for force feeding the material as called for in this provision of the claim,—that is, force feeding coating material to the points of atomization at a controlled substantially uniform rate to maintain thereat a supply of coating material for atomization?

A. The pump will supply to the back end of the hollow shaft coating material at a constant substantially uniform rate, and at that point the rotation of the atomizing bell centrifugal forces which are active on the coating material

due to the rotation will take over and spread and extend that coating material out into a thin, uniform layer forcing it to move from the central point of the atomizing bell to the outside edge.

Q. What is the significance in response to that question with respect to the system of Exhibit 17-B?

A. In the case of Exhibit 17-B the coating material is again pumped to the hollow shaft of the disk—the
409 hollow shaft on which the disk is mounted, at a controlled rate by virtue of the constant speed of the pump, and at that point the coating material exits onto the surface of the disk and the rotation takes over to force that material to flow out into a uniform film and move from the center of the disk to the outside edge where it appears at the site of the atomization as a thin, uniform film.

Q. The claim further characterizes the process as follows: "The distance between the article surface and the supported coating material being many times greater than the distance between adjacent ones of the points at which atomization of the coating material takes place."

Do you find any response to that provision in the process of Exhibit 8-A?

A. Yes, as shown in Figure 1 of Exhibit 8-A, the distance between the article surface and the supported coating material is obviously many times greater than the distance between the adjacent points 17 appearing on the front head of the atomizing head.

Q. What is the significance with respect to that provision in connection with the plaintiff's system shown in Exhibits 11-A and 11-B respectively?

A. As shown in 11-B the sites of atomization or the points certainly are much smaller, much closer spaced
410 together, I should say, than the distance between the atomizing edge and the article being coated.

430 Q. Will you turn, please, to the patent, Exhibit 4, which is the apparatus patent, 417; and I will direct your attention to Claim 4 thereof and ask you to note that this is apparatus as distinguished from process, and there will be elements instead of steps. I will ask you if in the illustration of that patent you find apparatus for electrostatically spray-coating an article? Do you find that?

A. Certainly in the patent there is an apparatus shown for electrostatically spray-coating an article.

Mr. Hume: I might say, Your Honor, that I will continue to refer to 8-A and 8-B, if I may, for clarity of construction inasmuch as the drawings are identical in the two patents; whereas this particular showing in color, 8-A and 8-B, is of the method patent, it will suffice to illustrate the construction apparatus patent.

Q. Now, is the apparatus of the plaintiff as illustrated in Exhibits 11-A and 11-B an apparatus for electrostatically spray-coating an article?

A. It is such a device.

Q. And how about the three forms of commercial devices that have been illustrated here as Exhibits 17-A, 17-B and 17-C?

A. They are such devices.

431 Q. The claim continues: "Comprising an atomizing head."

Do you find that in the patent drawing of Exhibits 8-A and 8-B?

A. That is correct. Figure 1 of Exhibit 8-A, Item 13, is such an atomizing head.

Q. In what color is such an atomizing head shown in these drawings?

A. In these drawings that is shown as being red.

Q. Is that true for all the forms illustrated?

A. Yes, that is true.

Q. Do you find such a part in the plaintiff's construction, Exhibit 11-A and 11-B?

A. I do, sir.

Q. What color is it there?

A. Also red.

Q. How about the three commercial forms starting with 17-A?

A. The structure of the atomizing head is red in that particular drawing also.

Q. And how about 17-B and C?

A. 17-B and C likewise has such an element that is shown as red.

Q. Now, the claim continues: "Means for feeding liquid coating material to said head."

Do you find that in the patent drawings, Exhibits 432 8-A and 8-B?

A. Yes, there is a means shown in the patent drawings; Figure 1 of Exhibit 8-A, and that element would be the hose 19, that would be a means for feeding the coating material to said head, for example. And you might say the combination of the tank and the hose in that particular figure would suffice to meet this condition.

Q. How about the other figures on Exhibit 8-A?

A. In Exhibit 8-A that portion of the device would be indicated as the hose 119, for example, in Figure 3 which would certainly meet the condition of being a means for feeding liquid coating material to said head.

Q. How about Figures 5 and 6?

A. 5 and 6 are of the head themselves, and a means of feeding coating material to that head is not shown in this particular drawing.

Q. What does the patent teach with respect to that?

A. The patent teaches that there would be such a device such as 119 of Figure 3 or 19 of Figure 1 incorporated here to provide that means.

Q. Do you find any response to that element in the plaintiff's construction illustrated in Exhibits 11-A and 11-B respectively?

433 A. In 11-A and in 11-B there is shown in yellow a tube which is referred to as a liquid inlet tube which would be a means for feeding liquid coating material to said head.

Q. How about the commercial construction of the defendant illustrated in Exhibit 17-A?

A. A means for feeding liquid coating material to said head in this particular construction in 17-A would likewise be the tubes which extend from the pump and likewise from the coating material supplied to the pump, and then from the pump to the atomizing head; and they are shown in yellow on this particular drawing.

Q. How about the commercial construction illustrated in Exhibits 17-B and C respectively?

A. In Exhibits 17-B and C we likewise have shown in yellow a combination tank-pump tube arrangement which would be adequately complete to fulfill this means for feeding liquid coating material to the head.

Q. Now, the claim continues as follows: "Means including said feeding means for distributing coating material to an extended atomizing zone where it is atomized from a plurality of spaced points."

Do you find any response to that in the patented construction of Exhibits 8-A and B?

434 A. Yes, that would be the chambered portion of the atomizing head which would supply the means which in turn would include the tubes 19 and so forth as recited here for distributing the coating material to an extended atomizing zone, taking the material which comes in through tube 19, for example, and distributing it to that atomizing zone at the front edge of the atomizing head where it is atomized from a plurality of spaced points.

Q. Do you find any response to that provision of the claim in the plaintiff's construction of Exhibits 11-A and 11-B respectively?

A. Yes, the included feeding means would in this case, as shown in Figure 11-B—or in Exhibit 11-B—pardon me —would be the liquid inlet tube, and the means for distributing that coating material to an extended atomizing zone would be the respective passage created between the two disks in that portion which is not blocked out by the internal spacer. That combination would provide the element recited here which would be for the purpose of presenting the material to an extended atomizing zone where it is atomized from a plurality of spaced points.

Q. Where would you find in the plaintiff's device of Exhibits 11-A and B respectively an extended atomizing zone?

435 A. That extended atomizing zone would be the portion of the periphery of the slotted disk emitter which was opened, I might say quote unquote possibly, by the omission of the spacer.

Q. In describing the feature of the disclosure of Exhibits 8-A and B in response to my last question, re to "means including said feeding means for distributing coating material to an extended atomizing zone where it is atomized from a plurality of spaced points," do you find any satisfaction for that provision in that part of the disclosure which is represented by Figures 5 and 6?

A. Yes, the opening which is shown in yellow in Figure 5 and which is indicated as extending across the length of the atomizing device certainly would provide that distributing means for picking up the coating material that was introduced by a coating feeding means and distributing it to the extended atomizing edge—atomizing zone.

Q. Do you find any response to that provision in con-

nection with the commercial construction of the defendant illustrated in Exhibit 17-A?

A. Yes, that means would be the rotation of the atomizing head to provide a distribution of the coating material to the extended atomizing zone which exists around
436 the periphery of the atomizing bell, and that could be combined with the pump and the other elements discussed previously as being the means, including said feeding means for accomplishing that purpose.

Q. And where in that construction is the extended atomizing zone?

A. Around the periphery of the bell, the front edge of the bell presented to the article being coated.

Q. What is your answer with respect to the same question as applied to the constructions illustrated in Exhibits 17-B and C respectively?

A. The pump and the rotation likewise combine in these Exhibits 17-B and 17-C to provide the means described in this particular statement.

Q. Now, the claim continues: "Said points being sufficiently close together to permit the coating material to bridge the spaces therebetween."

Do you find any support for that statement in the patented construction of Exhibits 8-A and 8-B respectively?

A. In Exhibit 8-B certainly the points are shown as being close enough together to show the bridging—actually in Figure 7 of that Exhibit 8-B; and likewise in Figure 1 of Exhibit 8 the points are shown as being sufficiently
437 close together to provide such a condition.

Q. In that respect I will call your attention to the language of Claim 1 of the method patent, 536, which says: "A plurality of points spaced as to form a substantially continuous extended atomizing zone."

Do you place any different interpretation upon the lan-

guage of Claim 4 of the apparatus patent, 417, from that that I have just read to you from the method patent, 536?

A. No, I do not, sir, because, in order to form a continuous atomizing zone bridging is necessary so that you will get continuous and uniform feeding to the various atomizing points or sites.

Q. Do you find any response to the language that the coating material bridges the points in the plaintiff's construction as exhibited in Exhibits 11-A and 11-B respectively? Do you find any bridging there?

A. Such bridging exists and is shown between the discharge streamers in Figure 2 on 11-B; in particularly the lower figure of that exhibit.

Q. Referring to the lower right-hand figure of 11-B?

A. That is correct.

Q. Does that figure show bridging between the points of the material being atomized?

438 A. It does, sir.

Q. What is the fact as to whether or not you can find any response to that language in the commercial construction represented by Defendant's Exhibit 17-A—and I refer to the actual operation of the system?

A. In actual operation such streamers or atomizing sites exist on the front edge of the bell, as shown in Exhibit 17-A. And such liquid bridges from one atomizing point to the next at the base of the streamer.

Q. What is the answer to the same question with respect to the construction of Exhibit 17-B and C respectively?

A. Exhibit 17-B and C likewise in operation have between the adjacent streamers a bridge of liquid.

Q. The claim continues: "A support for supporting an article to be coated in spaced relation to said atomizing zone."

Do you find that in the patented construction of Exhibits 8-A and B?

A. Such a support exists in 8-A, Figure 1, and is designated as 11 in that figure. In Exhibit 8-B, Figure 8, the conveying device is shown as 311.

Q. Do you find any response to that element in the plaintiff's construction as illustrated in Exhibits 11-A and 11-B respectively?

A. There is no specific construction illustrated in
439 the drawing, but I presume such a construction would have to be necessary to support the article being coated and connect it to the ground.

Q. How about the construction of Exhibits 17-A, B and C respectively which represent various forms of the defendant's commercial construction?

A. Such supporting devices or conveyors as are indicated here certainly are shown and they are indicated in these three drawings as the orange elements.

Q. Now, the claim continues: "A means including a high-voltage source for creating over the surface of the article on said support an electrostatic field capable of atomizing the coating material into finely divided, electrically charged particles and electrostatically depositing particles atomized from said atomizing zone on the article while still in liquid state."

Do you find any response to that provision in the patented construction of Exhibits 8-A and 8-B?

A. Such means is certainly shown in Figure 1 of Exhibit 8-A as being the voltage supply. It is also shown in Figure 8-B—pardon me, Exhibit 8-B in Figure 9, the voltage supply there being indicated to establish such field.

Certainly that would be in those cases a means, includ-
440 ing a source of high voltage for creating over the surface of an article on the support such an electrostatic field.

Q. Well, does it create such an electrostatic field?

A. Yes, it does.

Q. And is the field capable of atomizing, and does it atomize the coating material?

A. Such field atomizes the coating material, atomizing the coating material into finely divided electrically charged particles, and electrostatically deposits those particles on the article while they are still in the liquid state.

441 Q. Do you find anything that responds to that provision of the claim in the plaintiff's construction of Exhibits 11A and 11B respectively?

A. Here also such a voltage is shown as connected between the ground and atomizing head or emitter to establish a field which would meet these conditions.

Q. What is the fact as to whether such a means is found in the construction of defendant's Exhibit 17A?

A. Here also a voltage supply or power supply, as designated on 17A, is also shown.

Q. And what does it do with respect to creating a field?

A. That power supply creates such an electrostatic field or electrostatic charge differential between the particles and the article of a strength to move the particles toward the article sufficiently rapidly to deposit them thereon while still in liquid state.

Q. What would be the answer to the same question with respect to the construction in 17B and 17C respectively?

A. Here also such a field is established by virtue of the disc being connected to the high voltage supply as shown.

Q. Now, the claim continues with the statement

442 "said atomizing head and support being so relatively disposed as to provide between the article and the atomizing zone a spacing great enough to permit substantial dispersion of the atomized particles by the electrostatic forces of the field." Do you find any response to that

characterization of the construction in the structure of the plaintiff's patent as illustrated in Exhibits 8A and 8B?

A. Such space is provided in the structure shown in Figure 1 of Exhibit 8A and also in the structure of Figure 7 of Exhibit 8B.

Q. Where and how is that space provided?

A. That space is provided between the atomizing head 13, and the article, 10, on the conveyor, 11.

Q. Now do you find any response to that provision in the plaintiff's construction exhibited in Exhibits 11A and 11B respectively?

A. In 11A that spacing or separation of the atomizing head and the supported article is certainly shown as existing between the red disc emitter and the article on the 443 conveyor being coated and in Exhibit 11B it is indicated as being sufficient by virtue or due to the fact that the actual dispersion is taking place off the edge of the discharge streamer.

Q. What is the fact as to that provision in connection with the construction of the defendant's commercial operation illustrated in Exhibit 17A?

A. Such spacing is provided by virtue of positioning the atomizing head in spaced relationship to the articles on the conveyor so that you have existing between the atomizing head and the support a sufficient spacing so as to provide between the article and the atomizing zone a spacing great enough to permit this dispersion that is referred to.

Q. What is your answer to the same question with respect to the constructions illustrated in Exhibits 17B and 17C respectively?

A. Such spacings are also provided in these devices shown in these two exhibits.

Q. Now, I want to direct your attention to the demon-

strations that were conducted Monday of this week and I want you to tell us, please, the voltages that were used in each test and the spacing between the atomizing head
444 and the article being painted in each case, if you know, and we will start with the No. 1 System that was the second demonstration we saw after the conventional compressed air hand gun.

The Court: Which exhibit is that here?

Mr. Hume: It would be the form of operation which is illustrated in Exhibit 7.

Q. What voltage was used in that demonstration?

A. In that particular demonstration a voltage of 90,000 volts was applied to the electrode system.

Q. And what was the spacing used between the electrode and the articles being coated?

A. In the demonstration which we saw on Monday, the spacing was in the order of 14 inches between the fine wire elements on the electrode system and the surface of the articles on the conveyor.

The Court: I know we have been referring to this demonstration and I recollect that the demonstration was part of the opening statement and not evidence yet. Do you want to make a record of that?

445 Mr. Hume: Well, Your Honor, in each instance I have had the witness tell us what occurred and I should think that the verbal representation of the demonstrations and supported by—

The Court: (Interposing.) We have three wheels of the car but the fourth one is the demonstration which is not in evidence. We have part of it in here but I don't know whether counsel here for the plaintiff wanted to stipulate that it be part of the evidence in this case, that demonstration, but as I understood it clearly was the opening statement.

Mr. Hume: There is no way we can preserve what was seen there short of a moving picture, I suppose, and I just use that reference to the demonstration to bring into focus the particular instance for the benefit of the witness and Court and all of us here. I think what happened has been pretty well represented in the language of the statements of the witness.

The Court: Well, I don't know that we can consider that demonstration as evidence and I just called that
446 to your attention. It is purely a part of the opening statement and if counsel on both sides want to get together and discuss it as to how you can make your record on it, you have been making continual reference to it trying to bring a part of it in evidence. It is not all there. I mean verbally.

Mr. Hume: Suppose we undertake to discuss that.

The Court: Over the evening you mean?

Mr. Hume: Yes, sometime before we dispose of this finally.

The Court: All right.

Q. (By Mr. Hume.) Will you tell us, with respect to the demonstration of the plaintiff's emitter head, which has been received in evidence here as Defendant's Exhibit No. 14, what voltages were used in that demonstration and what was the spacing, please?

A. The voltage used in that particular demonstration was 60,000 volts and the spacing between the article being coated on the conveyor and the front edge of the atomizing disc was 15 inches.

Q. What was the voltage used in connection with
447 the demonstration of the device received in evidence here as Defendant's Exhibit No. 9?

Mr. Meroni: Your Honor, I submit that that is immaterial and irrelevant from the standpoint of it being a demonstration. You see, we are put at a disadvantage.

We have the device here. It is no longer spaced from the work so we can check it to see whether or not the statement is correct, and I submit that that is improper examination to base it on a demonstration which we can't check with the witness on cross-examination.

The Court: You mean you are referring to the demonstration Monday again?

Mr. Meroni: Yes.

Mr. Hume: That is right.

The Court: I have a memory of some occasions, and I don't know whether it applies to this particular one where counsel for the plaintiff inquired of those in charge of the demonstration in some instances of voltage that I overheard and I don't know whether it is of record here. The Reporter was there. Also concerning spacing and
448 what happens to the paint when it was turned off and what happened when the voltage was turned off and different combinations. Whether this particular one you inquired of and saw, I don't know. Do you recall yourself?

Mr. Meroni: I think I was apprised of the voltage but not the spacing. This was the one where the operator manually went over the grid and held it and he moved it around and the distance could have varied all the time he was doing it and we didn't know what the spacing was.

The Court: Well, let's read this question then. You are in effect answering the question.

(The preceding question was read by the Reporter as follows: "What was the voltage used in connection with the demonstration of the device received in evidence here as Defendant's Exhibit No. 9?")

The Court: The question is solely as to voltage and you leaped over into spacing.

Mr. Meroni: I thought it was on spacing, too.

449 Mr. Hume: Only on voltage.

The Court: Then your objection extends itself to spacing, and as I understood it, you conceded here, in the discussion with the Court that you did inquire as to the voltage?

Mr. Meroni: Yes, Your Honor.

The Court: Do you maintain your objection then to this particular question?

Mr. Meroni: I inquired as to the voltage and was told by counsel here what it was but if they had produced this witness at the time of the demonstration and given me an opportunity to examine and check the meters and see what the voltages were, that would be one thing, but I had to take counsel's word for it.

The Court: I will sustain the objection, gentlemen. The demonstration is not in evidence and that is where I was afraid you were going to get some place along the line when you brought it up.

Q. (By Mr. Hume): Would you tell us, Dr. Miller, 450 what the voltage was that was used on the bell type of apparatus as represented in Exhibit 17A here?

Mr. Meroni: May I have it understood that my objection continues to apply, Your Honor, without repeating it each time, if he is going to go into these demonstrations.

The Court: This question doesn't even mention the demonstration as I recall it. Would the Reporter please read it?

(The preceding question was read by the Reporter.)

Mr. Hume: It doesn't mention the demonstration. I will rephrase it.

Mr. Meroni: Except he identified the illustration as being representative of the apparatus that was demonstrated, Your Honor. It is coming in the back door.

Q. What is the voltage that is conventionally used in conjunction with the operation of the defendant's com-

mercial bell type system, and for identification, I refer to the general type represented in Exhibit 17A?

451 A. Generally speaking, the voltage that would be applied to a typical installation of this type would be 90,000 volts.

Q. What is the spacing that is usually employed?

A. The spacing that is usually employed would be 12 to 14 inches.

Q. And what is the voltage that would be employed in the defendant's commercial installation as represented in Exhibit 17B?

A. The voltage in a typical installation of that type would be ninety to one hundred thousand volts.

452 Q. And what is the answer to that same question with respect to 17C?

A. Likewise would be that voltage in case of 17-C.

Q. What would be the spacing in 17-B?

A. 17-B, a normal installation would provide a spacing in the neighborhood of 15 to 18 inches.

Q. Now, at the time the defendant first put into practice the No. 2 system for commercial purposes, what was known generally with respect to the voltages required for electrostatic deposition of paint?

A. At the time the No. 2 process was first put into commercial use, people acquainted and working in the field of electrostatic painting would have been acquainted with the fact that voltages in the order of 90 to 100,000 volts would be necessary for such use.

Mr. Meroni: I move to strike his answer as being hearsay. He can testify to what he knows, your Honor, but not to what other people know.

The Court: Would you read the answer? And you might as well read the question, too.

(The preceding question and answer were read by the Reporter.)

The Court: The answer will go out. You may answer the question now, Mr. Witness, if you can.

453 A. At the time we put the No. 2 process into commercial use, every electrostatic painting installation of which I had knowledge used voltages in the neighborhood of 90 to 100,000 volts.

Q. (By Mr. Hume): Well, when it was put in operation actually what volts were used?

A. 90 to 100 thousand volts were used at that time.

Q. And how did that compare with the practices that existed before in connection with the No. 1 system?

A. The practices in connection with the No. 1 system likewise used 90 to a hundred thousand volts.

Q. What was the fact as to the types and grades of paint to which the No. 2 system was applied when the system was first adapted to commercial usage as compared to what was used in the past for the No. 1 system?

A. The paints that were used with the No. 2 process were essentially identical to the paints that were used with the No. 1 process.

Q. And what is the answer with respect to the rate of paint fed as compared to the No. 1 system?

A. The rate of paint fed generally would be slightly lower with the No. 2 system because of the added efficiencies which were objectionable with that process over pre-
454 viously existing systems but they would be the same order of magnitude.

Q. Would the same rates of feed that had been used in the No. 1 system affect the No. 2 system from the standpoint of operativeness?

A. No, sir.

Q. What was the practice in fixing distances between the work and the electrode as compared to what was known as used, or I should say, what was used in the past on the No. 1 type of system?

A. The distances between the electrode and the article on the conveyor in the No. 1 system were established by virtue of the fact you had to provide sufficient clearance between the electrode and the article on the conveyor, so that first of all you could introduce the coating material into that space without intentionally spraying the electrode system, and secondly, you had to be sufficiently far away so at the voltages applied you get the field sufficiently strong to precipitate your particles and still did not have the possibility of sparking over from the electrode system to the article on the conveyor.

In the case of the No. 2 process the requirement of
455 introducing the material into the space which is referred to as the electrostatic field in this discussion no longer exists because it originates in that field at one terminal thereof, but you still have the requirement of having sufficient spacing so that you get a precipitating—having sufficient spacing so that a voltage can be applied in the form of a single field which will give you these characteristics you desire and the spacing, therefore, must be sufficiently large to allow the dispersion and also must be sufficiently large so you did not spark over from the atomizing head to the article on the conveyor.

Mr. Meroni: I move to strike the whole answer with the exception of the last part having to do with "spacing" as being non-responsive, your Honor; volunteered.

Mr. Hume: Your Honor, the witness was just explaining his answer and making a complete full answer on a technical subject.

The Court: Overruled. Next question.

* * * * *

461 Q. Dr. Miller, since yesterday have you had an opportunity to look at the transcript of the testimony you gave yesterday afternoon?

A. I have read that, sir.

Q. Did you have something in there you stated in there yesterday you would like to correct?

A. Yes, it is on Page 436. There was a statement which I made which should be modified.

Q. Will you please tell us what the question is and what the answer was?

A. The question refers to a reference which I made to a figure and if I could have the record I could point out where that is.

Q. Tell the Court what you want the answer to say.

A. On Page 436, I was asked the question:

"Q. Now, the claim continues: 'Said points being sufficiently close together to permit the coating mate-
462 rial to bridge the spaces therebetween.'

"Do you find and support for that statement in the patented construction of Exhibits 8-A and 8-B respectively?"

I replied—"A. In Exhibit 8-B certainly the points are shown as being close enough together to show the bridging—actually in Figure 7 of that Exhibit 8-B; and likewise in Figure 1 of Exhibit 8 the points are shown as being sufficiently close together to provide such a condition."

I inadvertently referred to Figure 1 in that reply. The reply should have read—"In Exhibit 8-B certainly the points are shown as being close enough together to show the bridging—actually in Figure 7 of that Exhibit 8-B; and likewise in Figure 5 of Exhibit 8, the points are shown as being sufficiently close together to provide such a condition."

Q. Does your correction have any bearing on the next question I asked you?

A. The next question and my answer to that question should be a specific reference to the apparatus shown in Figures 5, 6 and 7.

Q. Now, in going through the claims yesterday, Dr.
463 Miller, and referring to the phrases thereof, and particularly one phrase in Claim 1 of the patent, 536, covering the method which is here marked as Defendant's Exhibit No. 3, I neglected to ask you as to whether or not you found the elements of this particular phrase in the patent in suit.

Now, the phrase is found in Claim 1 beginning in Line 73 where it says "* * * said points being distributed relative to the article surface * * *" I find that I neglected to ask you whether or not that element is found in the Defendant's patented construction as represented in Exhibits 8-A and 8-B respectively?

A. That element is found in those places in Exhibits 8-A and 8-B, since the points of atomization are shown as being distributed lengthwise over the head, 13, with respect to the article on the conveyor.

* * * * *

465 Q. I will hand you the two photographs, Dr. Miller, which have been marked for identification as Defendant's Exhibits 18-A and 18-B respectively and I will ask you if you know what those are?

A. These are photographs which were prepared by me of the clotted disk atomizer as it was being operated.

Q. When were these photographs taken?

A. These photographs were taken this morning, sir.

Q. Where were they taken?

A. They were taken at our laboratory on New York Street.

Q. What emitter was used?

A. The Binks slotted disk emitter which was provided to us, and I believe it was referred to as Exhibit No. 9, I believe in evidence.

Q. The one I hold in my hand?

A. Yes.

Q. This is Exhibit No. 14.

A. I stand corrected, Exhibit No. 14. That is the emitter used for these photographs.

Q. Was it the identical emitter as the one here, Exhibit 14?

A. It was sir.

Q. Now, how was it connected for operation, please?

466 A. It was connected for operation by being positioned essentially as shown in the figure, Exhibit 18-A, pardon me, and positioned above the object being coated which in this particular case was a flat plate that was positioned at a distance roughly 23 inches, I believe, below the disk itself and the disk was connected to a high voltage supply, the other side of which was grounded and the object being coated was likewise grounded. It is essentially the figure which is shown as the center showing in Exhibit No. 12.

Q. Was the disposition of the emitter in respect to the surface being painted in the same relationship as shown on Exhibit 12 when the legends with the Exhibit 12 are in proper position for correct reading?

A. That is correct, sir, and the distance was 15 inches instead of 23 inches from the disk to the work. It was 15 inches in that setup.

Q. Tell us the rest of the conditions for the operation of the emitter.

A. For the operation of the emitter, as I said, the voltage applied to the disk was produced by a suitable high voltage supply and maintained at 60 kilovolts with their respect to the grounded work. The coating material

467 which was a Glidden Japalac material, I believe it was referred to, which was identical to material that was used at an earlier exhibit of this device, at the Binks Manufacturing Company, was pumped to this device at a controlled rate of 37 cubic centimeters per minute and under

the action of the high voltage, the material was broken up into a fine spray and carried across and precipitated on the object 15 inches away.

Mr. Meroni: I move to strike the part of the answer as to what was done at Binks because it is hearsay as far as this witness is concerned. He wasn't present.

The Court: What do you say about that?

Mr. Hume: This witness was not there. I grant that.

The Court: You agree with the motion then?

Mr. Hume: I agree this witness has no personal knowledge of it. We have a stipulation as to what went on there, though, your Honor. We have the answer to the interrogatory as to what went on at that operation.

468 Mr. Meroni: That is right, but this witness has no personal knowledge.

The Court: Your question is directed at his demonstration here and he is going beyond that into another demonstration, and that portion of the answer will be stricken. The motion will be sustained.

Q. Will you continue to explain the characteristics of the operation that you are referring to?

A. Under the operating conditions which I have mentioned, the coating material was actually broken up into fine spray as indicated in the photograph which is here contained as Exhibit 18-A.

Q. Well, now, how many fields were employed in this setup you have just described?

A. There was a single field existing between the disk atomizer and the object being coated, and under the action of that field the material was broken up into a spray of fine particles and they were dispersed and carried across and precipitated on the oppositely disposed articles.

Q. Was any compressed air employed?

A. No compressed air employed.

Q. Now, will you tell us how the photographic
469 equipment was arranged, please?

A. The photographic equipment was arranged in such a way that the camera looked directly at the surface shown in Exhibit 18-A, the camera lens being positioned 23 inches away from that particular device and looking directly at its flat surface as indicated here. A light source was positioned at one side and arranged to eliminate the disk in this particular picture. The light source was flashed and the photograph, as herein shown on Exhibit 18-A, was taken on the film. That film was later developed and since the film actually was a reduced image of the head, that film was then taken and enlarged so as to represent the full four and one-quarter inch diameter of the device as it actually was, and this is the result of that enlarged photograph.

470 Q. Do I understand that the showing on Exhibit 18-A, therefore, is a one-to-one representation showing the same size of head as the actual head?

A. That is correct, sir.

Q. Who set up and conducted the painting operation?

A. I actually had that set up and conducted in my presence and I took the photograph and turned on the switch, and so forth.

Q. Who did the developing of the negative?

A. I did, sir.

Q. Who did the printing?

A. I did, sir.

Q. Now, will you turn to Exhibit 18-B and tell us what that is?

A. 18-B is an enlarged image of another photograph which was taken of the same device, and in order to obtain an enlargement of this type, it shows the details of this picture as necessary to actually conduct a double exposure arrangement, one exposure being intended to show the

blade or the outside surface of the atomizing disk, and the other exposure being primarily to show in shadow the streamers which are formed at the edge of the disk; so, for this purpose the disk was set up and put in operation
471 as described; the camera was positioned as identically before described at a distance of 23 inches away from the atomizing device. On the other side of the atomizing device where the camera was positioned, a strobe light which is essentially a very intense, very short duration light, aimed at illuminating the filament and entering into the camera on the other side of the filament.

Q. When you say "filament" you mean what?

A. I am sorry, I mean the streamers, these parts that come down, the liquid extensions on the edge of the head. The arrangement was such that I took the light of the previous experiment, positioned it on the same side of the disk as the camera, flashed that light while the shutter of the camera was open, so as to record the atomizing disk itself as seen at the top of the exhibit 18-B, and then, without further modification of the equipment, the field was on and everything under those circumstances, the liquid was fed to the atomizing disk and the light at the back of the disk was flashed so as to superimpose upon the original image in the camera the streamers which are shown in this picture. I actually took both of those pictures, manipulated the camera during the picture, developed
472 the film, and from this film which is actually 25 to 1, was actually taken.

Q. Now, as I understand it, you took two exposures, is that correct?

A. That's correct, sir.

Q. Which one was taken first?

A. The exposure on the, showing the disk itself, was taken first.

Q. Is that it on the camera side?

A. That is it on the camera side.

Q. Was the camera moved at all in relation to the head during the taking of the first—between taking the first and the second pictures?

A. It was not, sir.

Q. Will you make it a little more clear just why this first exposure was taken?

A. It is to show the location of the edge of the device in the photograph. If this is not done, that edge does not stand out clearly so you can distinguish specifically where the edge is located.

Q. Now, at the instant of this first picture being taken, is the device working or not working? Are there any streamers there or not?

A. There are not at this point. The field is on and 473 everything else is in function but there are no streamers.

Q. Now then, the second picture follows, and what is done again with that second picture?

A. It is actually the same picture. It is the same piece of film, the camera has not been moved, no modification, the film has been left in the camera. The only thing that has been done is that the pump has been turned on and the coating material is delivered to this device and when the device is in operation and has the showing of 18-B in an over-all view, the back, the light at the back of the disk, that is on the other side of the disk from the camera, is flashed for roughly a third of a microsecond so that the motion and everything is stopped and you see the situation.

Q. When was this second picture taken?

A. The second picture was taken this morning by myself.

Q. And where?

A. At the New York laboratory.

Q. And with respect to what piece of equipment?

A. With respect to the Binks slotted disk atomizer.

Q. Is that the same or different equipment from the equipment you describe in the equipment for the first photograph in Exhibit 18-A?

474 A. It was an identical piece of equipment. As a matter of fact, the piece of equipment referred to was not moved between the taking of these two photographs.

Q. Just to make the record absolutely clear, tell us what was the condition of the head from the standpoint of whether it was, the streamers were present when the first exposure was taken.

A. The first exposure which was taken there is with no streamers present.

Q. Why?

A. Because there was no coating material being delivered to the atomizing head under those circumstances.

Q. Was the light on the opposite side of the head from the camera on when the first exposure was taken?

A. It was not on, sir.

Q. What light was on?

A. The light that was on was the light on the same side as the camera and as I said, was there primarily for illuminating the atomizing device and bringing out the scratches and marks which are shown in this photograph.

Q. When the second exposure was taken what lights were on?

A. Only the light at the back, the strobe light.

Q. And the light on the near side was out?

475 A. That is correct. That is necessary because we use what is called a "dark field technique" in which the camera is left open and the light is flashed.

Q. What is the fact as to whether or not streamers were present when the second exposure was taken?

A. There were streamers present when the second exposure was taken.

Q. That is on account of what?

A. Because of the fact that we had started the pump and thereby delivered material at a controlled rate to this device.

Q. Now, is this photographic technique that you have referred to one that you have used ever before?

A. I have, sir.

Q. Is it—do you know whether or not it is a common practice with the defendant to use this kind of technique in making this kind of picture?

A. It is. It is a technique which has been developed by our organization for this particular purpose. I might say it wasn't specifically developed because the technique basically is old, but the specific application of the technique is used by our firm to study and to bring out the characteristic of such discharge phenomena.

476 Mr. Hume: Your Honor, I offer in evidence Defendant's Exhibits 18-A and 18-B.

(Defendant's Exhibits 18-A and 18-B offered in evidence by Mr. Hume.)

Mr. Meroni: Your Honor, may I ask the witness a few questions?

The Court: Yes, sir.

Mr. Meroni: Mr. Miller, what fraction of time is represented in the picture, Exhibit 18-A; in other words, how rapidly did you have to take that picture?

The Witness: Exhibit 18-A was taken at a 50th of a second with a F stop of 16 on the camera.

Mr. Meroni: How did you avoid showing in Exhibit 18-B the fact that the points are constantly changing on this when this type of an emitter is operating?

The Witness: This picture, 18-B, so far as the streamers were concerned, was taken in one third of a micro-second, a micro-second being a millionth of a second, so you have essentially a stopping of the motion during that

time, so you actually see in this picture the particles which are being formed off the end of the streamers as stop dots.

Mr. Meroni: If you had taken it for any longer
477 period of time, then the points would shift, wouldn't they?

The Witness: The points would not shift, no, sir.

Mr. Meroni: The streamers would shift?

The Witness: The streamers would shift only to the extent that is shown in the other Exhibit 18-A.

Mr. Meroni: What I am trying to find out is the streamers don't always remain in the same position, they don't always emanate on the same points of periphery of this disk, do they?

The Witness: That I can't guarantee. That is correct, sir.

Mr. Meroni: One more question: Did you make this test by feeding this paint through a needle valve or through a pump?

The Witness: We did not have a needle valve; we used a pump.

Mr. Meroni: What pressures did you use

The Witness: The pressures were just sufficient to
478 deliver the coating material to the atomizing head and cause it to ooze out of the slotted part of the disk.

Mr. Meroni: Were you aware of the fact in the answers to the interrogatories that it had been recited the Binks device had been operated at a 100,000 volts?

The Witness: I am not certain of that fact, sir. I read the interrogatories.

Mr. Meroni: Why did you operate it at 60,000 instead of 100,000?

The Witness: That is the most ideal conditions we have found for producing atomization with this device and this coating material.

Mr. Meroni: That is your own experimental work with this type of device here?

The Witness: With this device that was supplied to us as part of this work we investigated and found that was the most ideal conditions of operation for it.

Mr. Meroni: You are talking about Exhibit 14?

The Witness: I am, sir.

479 Mr. Meroni: You had never seen another device like that?

The Witness: No. This is the only one I have seen.

Mr. Meroni: In your experimental or testing work with the, with it, you only used this one device?

The Witness: On that particular device experimental work and testing work we carried out, we used only that device.

• • • • •

481 *Cross-Examination by Mr. Meroni.*

• • • • •

486 Q. Well, just so that the record is clear, would you say that it is correct to state that as of the summer of 1943 the No. 1 System and the detearing system of the Ransburg Company were already in commercial use?

A. If you mean by "commercial use" that we had licensees or that the company had licensees at that time I will have to answer no.

Q. Well, were they available to the market at that time?

A. They were, sir

Q. Had you demonstrated such systems to customers at that time?

A. When I came with the company in 1943 we were in a position to demonstrate such equipment to customers.

487 Q. Now, tell the Court what an electrostatic detearing system is, with particular regard to the summer

of 1943. In other words, the type of system that was already in existence at that time at the Ransburg Company.

A. I perhaps could best describe that type of system as illustrating the major use to which it was being put at that time. Since this was during the war years, the United States government had a problem of coating steel shell cases, that is, the powder container to which the projectile is attached and which is then used to propel a shell or the projectile. Brass had become a very restricted item, obviously, because of the shortage of copper; and the government found it necessary to make these shell cases out of steel, and the problem of coating them automatically arose. They were difficult to spray because of the internal cavity. Ordinary dipping procedures allowed a bead or a heavy edge to form around the bottom or the open mouth of that shell, which resulted in the shell casing sticking in the breech of the gun when the shell was breached and fired, and then during the process of rejecting the 488 shell case, of course, it would stick in and the gun would become inoperative. So this represented a major difficulty with the use of steel as shell cases since obviously they had to be coated, otherwise they would corrode and deteriorate in the field. Dipping seemed to be the ideal way of applying the material to the surface of the shell. The heavy edge around the bottom or the open mouth of the shell represented a major detriment to using that method.

The electrostatic forces between articles seemed to present the possibility of removing that heavy edge. And so we supplied that method in the form of our detearing process where the dipped shell, having previously been immersed in the liquid or a coating material, was then removed from that liquid, allowed to drain under the action of gravity until all of the surplus except the bottom heavy edge had left the shell. The shell was then carried by a conveyor over a charged grid system and the attraction between

the grid and the shell caused this material to blob off, and as it passed over the grid it would clean up that heavy edge and the shell could then be carried into a curing oven
489 and baked so that you had then a projectile or a finished item without a heavy edge.

Q. What happened there was that as the shell with this coating on it entered the field, the electrostatic field would atomize the surplus paint, wouldn't it?

A. It would remove the surplus paint, sir.

Q. It would atomize the surplus paint, would it not?

A. As the shell approached the grid the surplus paint came under the influence of the grid, and in many cases, and in most cases, it would blob off in rather large particles, and as the process continued to pass over the grid that material would be removed in various sizes depending upon what was available there on the grid.

Q. Getting back to my question, it would atomize the surplus paint, would it not?

A. What is your definition of atomization, sir?

Q. The same sense that you are using it here in coating.

A. In a sense of coating I would not say that that material was completely atomized.

Q. Well, would you say that the surplus material was broken down into small particles as it was removed by
490 the electrostatic field and dispersed?

A. I have to again qualify my answer in the sense that you have used the word "small." These particles were not of a diameter which would readily lend themselves to a coating application.

Q. Well, how small were they?

A. These particles might be the size of an eighth of an inch; some of them might have even been the size of three-sixteenths of an inch in diameter.

Q. By the way, while we are talking about that, does the Starkey Patent, either of the Starkey Patents, any place tell you what size the particles have to be?

A. No, but the Starkey Patents—

Q. (interposing) I just asked you if they did.

A. No. Pardon me, sir.

• • • • •

492 Mr. Meroni: All right, sir.

I have a patent here which I would like to have the Court Reporter mark for purposes of identification. It is Ransburg et al. Patent No. 2417798, and I would like that identified as Plaintiff's Exhibit four A.

(The Plaintiff, for purposes of identification, handed the Reporter a certain document for marking, and which was by said Reporter marked Plaintiff's Exhibit AAAA.)

Q. I hand you what purports to be a copy of Ransburg Patent 2417798, bearing an application filing date of June 25, 1943, and ask you if you are familiar with the detearing subject there shown.

The Court: Is that patent included in your brief?

Mr. Meroni: No, your Honor, but this is included in the patents owned by Ransburg as to which we have a stipulation.

Here is an extra copy for the Court.

(A document was handed to the Clerk of the Court.)

493 Mr. Meroni: Have you answered the question, Mr. Miller?

The Witness: I have not.

A. I am generally familiar with that patent, yes.

494 Q. You recognize the patent as disclosing a detearing apparatus?

A. Yes, sir.

Q. Now, is it true that the earliest activities in connection with the Starkey, et al. patent, the subject matter here in issue, occurred in October of 1943? Is that your recollection?

A. That is essentially right, sir, yes.

Q. Just to refresh your recollection, you recall during

the depositions identifying the first entry having to do with this development, Binks Exhibit B-1, the entry being dated 10-29-43—"Al Starkey suggested using the detearing action from the bottom of the brush as the atomizing agent to spray items passing under this arrangement—see figure" and there is an illustration there below. Does that refresh your recollection of the date?

A. Yes, sir.

Mr. Hume: Does that have an exhibit number?

Mr. Meroni: B-1.

Q. Now, did you say that detearing does not involve coating?

A. In the detearing process, articles are coated, yes.

Q. Well, isn't the detearing process essentially a 495 coating process wherein you remove the surplus paint and deposit it someplace?

A. It is one step of such coating operation.

Q. One step?

A. Yes.

Mr. Meroni: I would like the Court to see this Exhibit B-1, which we will, in due course, offer in evidence with the deposition.

Q. Now, as a matter of fact, didn't you have quite a bit to do with the original disclosure of the Starkey, et al. subject?

A. I actually received the information from Al Starkey and prepared a write-up, describing that disclosure which was sent to our patent attorneys.

Q. And you described it in several instances as a detearing operation, did you not?

A. I did, sir.

Q. I would like to refresh your recollection in that regard. Here is Exhibit XX dated, I believe, December 10, 1943. Is that a memorandum prepared by you on or about that date concerning this Starkey, et al. invention?

A. This is.

496 Q. And does that refresh your recollection that you referred to this in terms of "deteared" and "detearing edge"?

A. May I see the disclosure again, please?

Q. Yes.

A. Yes, I referred to it in this article as "deteared" and "detearing edge."

Q. Wasn't this article specifically prepared for transmission to the patent lawyers in preparing the application?

A. It was, sir.

Q. Did you transmit it to them?

A. I cannot answer that specifically, sir.

Q. Did you have any discussion with the patent attorneys in connection with the preparation of the Starkey, et al. patent?

A. I did, sir.

Q. Wasn't it part of your duties at that time to assist in the preparation of the patent applications on behalf of the company?

A. Prepare such technical information as was needed, yes, sir.

Q. You acted as a liaison between the company and
497 the patent counsel?

A. From the technical standpoint, yes, sir.

Q. Now, do you have a recollection of submitting to the patent attorneys the data and drawings for Figures 5 and 6 of the Starkey, et al. patent?

A. Such drawings were prepared, sir.

Q. Didn't you prepare them?

A. Some of them I did; some of them I directed their preparation.

Q. And doesn't this memorandum concern those figures? Do you want to look at it?

A. If I could, please.

The document in question was handed to the witness.

A. (Continuing.) This memorandum refers to certain drawings, engineering drawings, which were prepared for submission to the patent lawyer and from those rough drawings or those engineering drawings, this patent drawing was prepared, sir.

Q. And is this drawing, 4307, one of those that was prepared, this having been identified as Binks Exhibit J?

A. Drawing No. 4307 is one of those which was so prepared, sir.

498 Q. Did you prepare the specific drawings identified there as Figures 5 and 6 up in the right-hand corner?

A. Yes, I did, sir.

Q. And those are the figures that were used by the patent draftsmen or patent attorney in preparing 5 and 6 of the application, were they not?

A. They were.

Q. Now, you likewise supervised the preparation of this Exhibit 9 you produced here as being representative Figures 5 and 6, is that right, sir?

A. I did, sir.

Q. And you offered that to the Court as being a fair version of Figures 5 and 6, is that correct?

A. That is correct, sir.

Q. Well, now, I would like to read to you the description that you gave to the patent lawyer to prepare Figures 5 and 6, and see if that refreshes your recollection. "In drawing 4307, one modification of the electrostatic atomizer is revealed." Figure 1, which has been numbered by the attorney or the draftsman as Figure 5, you recall that, do you not, sir?

A. Could I have that copy while you are reading it?

Q. Yes.

499 "Figure 1 shows a cross section view of the arrangement. A supply trough, 2, carrying the paint supply,

has an elongated funnel shape. As indicated at the mouth, 3, of this funnel, there is rigidly fastened a member, 1, composed of fine wires wound about a fixed shaped mandril. The sides of the funnel are the only points in contact with the five wires so that when viewed below this arrangement presents the appearance of Section AA. The series of openings thus formed between the wires offer a group of passages through which the coating material can flow down to the lower edge. In this manner, one has a uniformly distributed source of material."

Did you prepare that information in those drawings for the draftsmen or the patent attorney to use in the preparation of Figures 5 and 6?

A. That is correct, sir. I was referring to the drawing Figures 5 and 6 as shown here when that was prepared.

The Court: That is 5 and 6 on your drawing, 4307?

The Witness: That is correct, sir.

Q. How does it happen then that Figures 5 and 6 show pins instead of wires, do you know?

500 A. That was a later development or thought concerning this particular device.

Q. Who gave that development to the patent attorneys?

A. I imagine Ed Ransburg did, although I am not certain.

Q. You don't know?

A. I do not know.

Q. It couldn't have been a mistake of the patent attorney, could it?

A. I cannot answer that question, sir.

Q. Well, as a matter of fact, isn't it true that the patent attorney showed hollow pins in Figure 6?

A. I cannot answer that specific question, sir, without reference to the showing in the patent.

Q. Well, don't you have the showing there in that Exhibit 8-A?

A. That is a drawing of what appears in the patent. The description of it probably clarifies the point you are referring to.

Q. I am asking you about the drawing. Doesn't that convey to you the impression, as a man familiar with drawings, of hollow needles?

A. They might be points of needles as far as I can tell from that drawing. That is a sectional drawing.

501 Q. I call your attention to the drawing as it appears in the patent application, which is Exhibit 5-A here, and ask you if that doesn't convey to you, taking into consideration that it is a section under Line 66 looking downwardly the appearance of those pins being hollow needles?

A. I have no way of telling that, sir. There is no information revealed in this drawing that those are solid or hollow.

Q. Well, you took it for granted they were solid when you made this model, did you not?

A. We went on the basis of the specification, sir.

Q. The specification doesn't say they were solid, does it? Do you want to look at the patent in that respect?

A. I would like to look at that description, sir.

Q. All right, here is Exhibit No. 3.

The exhibit in question was handed to the witness.

A. The patent specification recites that Figures 5 and 6 show a further modification of the applicator head indicated at 213. In this head, the orifices through which the coating material flows are provided by a plate, 214,
502 clamped between opposed rows or needles, 215. The needles are cylindrical so that the material will be caused to flow between them, the plate, 214, and the clamping walls, 216, so as to come out in the form of an inert droplet, 217, of coating material." I believe the specification clearly defines this or these as being needles.

Q. Doesn't say that they are solid needles, does it?

A. No, but the fact that the coating material flows down around the outside rather than that which would be indicated if they were hollow, certainly convinces me they were solid needles.

Q. We have some enlargements made of Figures 5 and 6 from the Patent Office photostat, and I hand you a copy.

Mr. Meroni: First I will have it marked for identification as BBBB.

(The plaintiff, for purposes of identification, handed the Reporter a certain document for marking, and which was by said Reporter marked Plaintiff's Exhibit BBBB.)

Q. According to that enlargement, 214 is a divider strip, is it not?

A. That is correct, sir.

Q. And on opposite sides of that strip, 214, apparently are some needles, is that correct, sir?

503 A. That is correct, sir.

Q. The needles appear staggered, do they not?

A. On opposite sides of the central plate, that is correct.

504 Q. If they were wires, they would also have appeared staggered, would they not?

A. I can't tell from this drawing, sir.

Q. Well, if that dividing strip, 214, had been wound by wire as described in your original description, then you would see strips or portions on opposite sides of the strip, 214, staggered with respect to each other, would you not?

A. That is correct.

Q. Now, assuming that Fig. 6 is taken on the line, 6-6, or Fig. 5, looking downwardly, the white areas would designate the absence of material, would they not, on the top of the pins, 215?

A. The white area designated as 216 is shown as white, and I am sure that is solid material.

Q. You say the white area designated as 216 is designated as solid material?

A. That is correct. That is the—

Q. (Interposing.) What about the little white circles in the middle of the pins, the pins being otherwise dark except for the white round holes in the middle?

A. I have no way of telling, sir.

Q. You couldn't say whether or not that is a hole or not?

505 A. I cannot, sir.

Q. Now, look at the lower end of the pins, 215. Do you notice how the globules of inert particles are collected at 217?

A. Yes, sir.

Q. The material is only at the extreme lower end of the needle, is it not?

A. I believe it shows that it is being fed down the side of the needle on the right-hand side.

Q. Wouldn't that material be solid up between the fingers, if it was coming down?

A. It would be liquid, sir.

Q. It is not shown that way, is it?

A. It is pretty hard to designate liquid in a drawing of this type, sir.

Q. 217 is liquid, isn't it?

A. 217 is liquid.

Q. If the liquid was continued up between the fingers, that darkening would have appeared between the needles, too, would it not?

A. Those needles are in two different rows, sir.

Q. There is no particles of liquid matter connected to the globules, 217, extending up into the area where the

506 partition strip, 214, is, is that right?

A. I would have to point out that the globule of the liquid at the bottom of the pin, shown in solid black, gradu-

ally tapers off as it goes up toward the top of the head, the black line being heavier as it goes along the side, as it is in the same line represented above the dividing strip, for example, which to me would indicate there is an effort on the draftsman's part to show the coating material flows down the side of the pin to the lower edge.

Q. Now, when the patent talks about projections, or points, the patent is referring to points like 217, is that correct?

A. Not necessarily, sir.

Q. What other points could—What other points could the patent be talking about?

A. The points formed at the—on the droplets or inert droplets of liquid.

Q. You mean to tell this Court that you are representing to the Court that when this patentee talked about globules or particles of liquid matter on points, he wasn't talking about the material being on mechanical points but was talking about it being on liquid material?

567 A. Both modifications are included in this disclosure, sir, to the best of—

Q. (Interposing.) Will you point out in the patent any place a description which says that they are liquid points?

A. Describes them as being points of atomization, as I remember, sir.

Q. Points of atomization on these projections like 217, isn't that right?

A. I would have to refer to the patent for—

Q. (Interposing.) You have a copy, I believe, before you.

A. (Continuing.) —various positions that are referred to.

Q. You referred to claims here. Let's take Claim 2 for example, of the apparatus patent, which is a division of this. I hand you a copy of that patent, which has been

marked as Exhibit 4, and call your attention to Claim 2, of, for example, of Exhibit 4.

Now, he talks about the wire wrapping having a series of spaced turns, portions of which constitute projections. Now, you understand that when he is talking about "wire wrappings" he is referring, for example, to showing like in Fig. 7.

A. That is correct.

Q. And when he is talking about projections, he is
508 talking about the lower ends of each turn of wire. Do you understand that?

A. The claim describes the means as a wire wrapping having a series of spaced turns, portions of which constitute projections and the spaces between which constitutes restricted orifices.

Q. Then, he says, "Electrostatically atomized finely divided particles from coating material on the surface of said projection," isn't that correct?

A. That is correct. "The said projections refers back to the statement."

Q. So that in this particular instance where you have the wire wrapping, the particles of matter are—that are atomized, are on the projection formed by the lower extremities of the wire wrapping, is that correct?

A. On portions of such wire wrappings.

Q. With that modification it is correct?

A. I do not know specifically where those portions are located from this disclosure.

Q. You have not studied this patent in detail?

A. I have. I am interpreting the patent, the wording that is being handed to me, however.

Q. In this same apparatus patent, Exhibit 4, col-
509 umn three, we find this statement, line 41, "As illustrated in the drawings, the needles are sufficiently close

together as to cause the coating material to bridge the spaces therebetween." Do you find that statement?

A. I do, sir.

Q. Do you find any corresponding statement in the original patent, Exhibit 3?

A. Such statement is not there, sir.

Q. Are you aware of the fact that that statement was introduced in the application of the apparatus patent, Exhibit 4, after the defendant, Ransburg, learned of the plaintiff Binks' emitter, SK 661? Are you aware of that fact?

A. Could I have that question repeated again?

The Court: Read the question.

(The preceding question was read by the Reporter.)

A. I am not aware of the fact as to specifically when this was introduced into the patent application.

Q. Well now, in constructing this exhibit that you have there—

The Court: (Interposing.) Exhibit 9.

Q. (Mr. Meroni continuing.) —9, did you con-
510 struct that in the light of the teaching of the patent, method patent, Exhibit 3, or in the light of the teaching of the apparatus patent, Exhibit 4, which was supplemented to include this statement about the coating material abridging the spaces?

A. Since this is a piece of apparatus, I went to the apparatus patent for disclosure.

Q. So you constructed this in the light of the entire description of Figs. 5 and 6, appearing in column three, of the apparatus patent, Exhibit 4, is that correct?

A. That is correct, sir.

Q. Now, is there any divider strip in there like No. 214?

A. There is a strip of metal between the two rows of pins, sir.

Q. Is that a separate strip of metal that was put in there with the fingers alongside of it?

A. As I testified earlier, this device was built in a manner which was most convenient to construct from a mechanical standpoint and the pins, or extensions and needles, as they are referred to, were actually screwed or tapped into the base of the triangular trough openings being provided, as indicated in the disclosure.

Q. In other words, you drilled some holes in the
511 bottom of the trough and stuck some pins in it? Is that what you did?

A. We screwed those pins in so they would be attached.

Q. You did not attempt to make it as shown in the patent by taking a separate strip of material, 214, mounted needles, 215, on opposite sides, and then crimping the sides, 215, to the trough thereto?

A. We produced as nearly as we could and in as easy a manner as possible in Fig. 5 and 6.

Mr. Meroni: Read the question and see if you can give me an answer to the question, please, sir.

(The preceding question was read by the Reporter.)

A. We did not.

Q. So you don't know whether it can be made that way or not?

A. I personally do not know specifically that it can be made this way.

Q. Then you admit this device that you have produced as Exhibit 9 is not an exact reproduction of Figs. 5 and 6?

A. That is not an exact reproduction of Figs. 5 and 6.

Q. Did you supervise the construction of this model?

A. I did, sir.

Q. Who was the man that made it?

512 A. I would have to get his name. (Referring to notes.) Mr. Downing and Mr. Moos, Al Moos and Dick Downing.

Q. Did you go out in the shop and tell them how to make it?

A. I did not.

Q. Who did?

A. I gave instructions to Jim Juvinall to have such device made and he in turn followed through from that standpoint.

Q. He is an engineer of the company?

A. He is an engineer of the company.

Q. He does not report to you?

A. In connection with this device he did.

Q. He does not ordinarily, does he?

A. Ordinarily, he does not.

Q. You say that was the extent of your supervision? Namely, you told this other engineer to go out in the shop and have it made?

A. When the device was completed, I was asked if this was what I wanted.

Q. So, after you told Mr. Juvinall you did nothing more about it until he handed you this device and said, "This is it"?

A. We discussed the possibilities of making the device.

513 Mr. Meroni: Your Honor, I don't think this is a fair reproduction of this patent and I objected to it before and I am going to renew my objection.

The Court: The objection is overruled.

Q. (By Mr. Meroni.) As far as you know, has the company at any time—and by "the company" I mean Ransburg—built any other device like this Exhibit 9?

A. No, sir.

Q. Are you aware of the fact that it has been admitted in answers to interrogatories or admissions, that none of the specific devices shown in the Starkey, et al. Patents here in suit have been actually commercialized?

A. Yes, sir.

Q. It is a fact, then, that you have never commercial-

ized a stationary atomizing applicator of the type shown in these patents?

A. That is not true, sir.

Q. You have commercialized and sold one like that shown in these patents?

A. No, sir, we have not commercialized a device like that shown in these patents.

* * * * * *

515 Q. Before the recess, Dr. Miller, we had two samples marked as exhibits here for identification; and I am handing you one of them marked CCCC and ask you from an external appearance would you consider this to be representative of the applicator head or atomizing head 13 in Figure 1?

A. It has the general external appearance of the applicator head of Figure 1.

The Court: In Exhibit 8A.

The Witness: In Exhibit 8A.

Mr. Meroni: Yes, Your Honor.

Q. I might state, so that you are not misled, that we were concerned with the external appearance and we have not put in there the partitions designated by the dotted lines in Figure 1 of 8A. With that exception, however, I believe that is a fair reproduction of it. Do you con-

516 sider it as such?

A. From an external appearance it would appear to be such, yes.

Q. Are the holes located in the proper manner in the vortex of the device, would you say?

A. They appear to be located in that way, sir.

Q. There is nothing in the patent that teaches how close the holes should be to each other, is there?

A. "So as to form essentially at the object a continuous dispersed coating" is the statement, I believe, in the disclosure.

Q. There is nothing in terms of inches or measurement with regard to the closeness of the holes, is there?

A. There is not, sir.

Q. Now, according to Figure 1 the liquid material comes out of the holes in streamers, as shown in Figure 1 of Exhibit 8A, is that correct?

A. The material is brought to these orifices in forms of inert droplets, as I understand the patents, sir.

Q. On each of the orifices?

A. That is correct.

Q. There is nothing in the patent that says how many orifices you need, is there?

517 A. No, there is not.

Q. And I believe in connection with the other forms there is nothing in the Starkey Patent that says how many pins or turns of wire you can use, is there?

A. No, sir.

Q. As far as the disclosure in the patent is concerned, if you had the device so formed that you got one droplet would that droplet atomize and be dispersed?

A. Yes, it would, sir.

Q. I hand you what purports to be a sample of another form marked Exhibit DDDD and ask you to compare it in a similar manner as you did the last one, but in this case with the showing in Figure 7, and state the results of your observation, referring to Exhibit 8B.

A. With the exception of the shape of the end plates, this appears to be generally the same exterior appearance as the device shown in Figure 7 of Exhibit 8B.

Q. There again you have no teaching in the patent as to how long it should be, have you?

A. Only insofar as the figure indicates that it would be comparable with the object you are coating.

Q. Well, if you were coating a penny would it be

518 the size of a penny?

A. It could be.

Q. Mr. Miller, I have here Defendant's Exhibit 6 which purports to be the file history on the Starkey Apparatus Patent, No. 2794417. I call your attention in this file history to Amendment C filed August 23, 1956, wherein Page 6 of the patent specification was amended to recite: "As illustrated in the drawings, the needles are sufficiently close together as to cause the coating material to bridge the spaces therebetween."

Now, I would like to ask you if you know of any place in the Starkey Patents or applications in suit where the needles were previously described as being sufficiently close as to cause the coating material to bridge the spaces there between? In other words, is this the first time that that description was ever incorporated in the Starkey et al. Patent disclosures?

A. I would presume that it is since in answering that question I haven't read this file in its completeness from the standpoint of answering your question, so I don't know whether it was ever entered before or not.

Q. Well, are you aware of the fact that there is an
519 admission to an admission or interrogatory stating that that is the first time that that specific language was used?

A. I know that such an interrogatory was presented.

Q. Now, I hand you copies of both of the patents in suit, Exhibits 3 and 4.

A. I have those, sir.

Q. And ask you if from your knowledge of those patents you know of any place at all in either of those patents where that language is used, except in the one point on Page 3, Lines 41 to 44, of Starkey Patent 2794417 which I have previously called your attention to. Do you know of any other place in either of these patents where that language is used?

A. There are no other places in these two patents where that language is used.

Q. Did you ever see detearing apparatus similar to that shown in this Ransburg Patent 2417798 previously identified as Exhibit AAAA in use?

A. Which particular figure, sir?

Q. Well, let's refer to all of them.

A. I don't believe I did see a single unit in which
520 all of these showings were incorporated.

Q. Well, did you see some of the units in use?

A. Yes, sir.

Q. You did?

A. Yes, sir.

Q. But you didn't see one installation embodying them all? Is that what your answer is?

A. That is correct.

Q. Now, I believe you said this patent is directed to an electrostatic detearing apparatus.

Mr. Hume: I object to what the patent is directed to. It calls for a legal conclusion. If he confines his questions to factual content of the patent that is a different matter.

Mr. Meroni: You have asked him about legal conclusions and opinions concerning the Starkey Patents in suit, and I believe you qualified him.

The Court: Let's have the question read.

(The Reporter read the following question: "Now, I believe you said this patent is directed to an electrostatic detearing apparatus.")

521 The Court: He can answer that. The question is before have you said this? It calls upon whether you have said it before here in testimony. "Yes" or "No."

Do you understand the question?

The Witness: Yes; I do; and I believe that I said that it did refer to such.

The Court: The objection will be overruled.

Q. Now, we had some difference of viewpoint here a while ago as to whether in detearing you can properly refer to it as a coating medium. Do you recall that discussion a while ago before the recess?

A. Yes, sir.

Q. Does this patent refresh your recollection in that regard, in that the first several paragraphs specifically say that the invention relates to apparatus for coating articles?

A. The detearing process relates to apparatus for coating articles.

Q. Yes, sir.

A. That was my answer, sir, that it does.

The Court: Well, the more correct terminology is
522 "decoating an article?"

The Witness: That is correct, sir.

Mr. Meroni: I would like to have this marked for identification as Plaintiff's Exhibit EEEE.

(The Plaintiff, for purposes of identification, handed the Reporter certain documents for marking, and which were by said Reporter marked Plaintiff's Exhibit EEEE.)

Q. I hand you what purports to be a catalog of the Ransburg Company and ask you if you have seen it or one like it before in the course of your work for this company?

A. I have, sir.

523 Q. Did you ever have anything to do with the preparation of any of the catalogs?

A. In a general way, sir.

Q. Now, on Pages 8 and 9, which are in the center of this catalog, I see some descriptive matter entitled "How Electrostatic Spray Works." Does that description correctly describe the No. 1 Electrostatic System as it was used prior to October 1943?

A. I believe that this does, sir.

Q. I don't want to mislead you. I don't believe this catalog was published in 1943. That is an article in the front here that is a reproduction of an Indianapolis News item reprinted January 27, 1947, so presumably this catalog was published some time after 1947, is that correct?

A. That is correct, sir. That is why I had to read the article to be certain that the disclosure was consistent with our practice before 1943.

Q. Have you any recollection as to when this was published by your company?

A. Shortly after that article which was supposed to have occurred in 1947, I believe.

Q. I notice on this page that you read here, which was Page 9, in the lower right-hand corner, reference is 524 made under Equipment to "When supply is necessary, specially designed electrostatic units * * *" etc. Were you supplying such equipment in 1943?

A. Yes, we were, sir.

Q. And you were supplying it continuously from 1943 through 1947, would you say?

A. That is correct, sir.

Q. And you still supply some, don't you?

A. Yes, sir.

The Court: You are in error on the page number. It is Page 8, isn't it? You said 9.

Mr. Meroni: The left-hand side, I would take it is 8 and the right-hand side is 9, I believe, Your Honor.

The Court: In your original question you asked him to read Page 8.

Mr. Meroni: I thought I asked him to read both pages.

Q. Did you read both pages 8 and 9?

A. Yes.

Q. Your answer was based on Pages 8 and 9, sir?

A. That is correct, sir.

Q. Now, this description of the No. 1 System that
525 is referred to on these two pages of Exhibit EEEE is applicable, is it, to the type of system shown on Exhibit 7?

A. It is, sir.

Q. That is the airless type that you described to the Court earlier in this proceedings, is it not?

A. No, sir.

Q. Or the air type, I mean.

A. Yes, sir.

Q. Now, by "air type" we mean where you use an air gun plus an electrostatic field? Is that a simple way of stating it?

A. That is correct, sir.

Q. By the way, while we are talking about this No. 1 type, if some of the paint strikes these bars (indicating) and accumulates on the bars, will that paint atomize off of these bars and become dispersed?

A. It depends upon the amount of material.

Q. Well, let's assume you get a substantial amount on one of these energized electrostatic bars, would it atomize off the bar and become dispersed?

A. In all probability it would run down the bar and would glob off the bottom of the bar.

Q. You wouldn't say it wouldn't atomize, would you?

526 A. That depends upon the word "atomize."

Q. Have you ever seen any instance where it did atomize off the bars?

A. I have seen instances where the particles which came off the bar, at least to a certain extent, could be considered to be in the size that might be usable for coating.

Q. From the standpoint of the physics principle of electrostatics there is no reason why you couldn't atomize material off the bars, if they had the right voltage, is there?

A. Conditions being correct, that would be true, sir.

Q. And once you atomize liquid particles, it follows they have to be dispersed, isn't that correct?

A. Yes, sir.

Q. You can't have atomization without dispersion?

A. That would depend upon the spacing, I would say, sir.

Q. But ordinarily it would be correct to say if you atomized the liquid particles, they would be dispersed?

A. I will have to qualify my answer to the extent that if the spacing were sufficiently large, such particles would disperse.

Q. Now, the particles have to go some place once 527 they are atomized, do they not?

A. Yes, they do, sir.

Q. And if they happen to lodge on an article then you say it is being coated, is that right?

A. I would say that particular particle is collected on the surface of the article.

Q. Well, when would you say an article is being coated?

A. In my language, I would say when the article is receiving a sufficient amount of these particles so as to form on its surface a coating in the trade sense of the word.

Q. Well, you have seen coatings that are not continuous or uniform, haven't you?

A. They would probably not be coatings in the sense we talk about them in the painting business.

Q. You sometimes have mottled finishes, don't you?

A. They are usually paint droplets over paint droplets.

Q. Can your No. 2 System be used for that purpose?

A. Yes.

Q. Would you call that, the use of the system, for coating purposes?

A. Yes, sir.

Q. So that coating is a relative term, isn't it?

A. It would depend upon the connotation in which
528 you found it, sir.

Q. Likewise, discrete particles is a relative term, is it not?

A. I would say a discrete particle is a rather specific thing to me.

Q. Now tell us what it means to you.

A. It means the particle which is isolated from surrounding matter other than possibly air or gas in which it finds itself, being discrete in the sense of being isolated, unique, which perhaps would be a word to use.

Q. Yes. From the standpoint of this Starkey device, it has to be more than that, doesn't it?

A. A discrete particle certainly doesn't have to be more than that?

Q. It does not? I sort of recollect your saying something about the range of size of particles, discrete particles, being in the order of three mils or three one-thousandths. I thought you said something about that the other day.

A. I did, sir.

Q. Isn't that what you mean by discrete particles?

A. Each of those particles in a sense would be consid-
ered to be discrete.

Q. Didn't you say if you got down to about a third of that size it might be too small so you would get a dry
529 coating and if you got them too large you would get an orange peel?

A. I did, sir.

Q. So that there is a range of useful discrete particles as far as this electrotsatic spraying process is concerned, isn't there?

A. Yes, sir.

Q. Does the Starkey patent teach that range?

A. The Starkey patent relates to the No. 1 process which was a coating operation and had by this time become rather

well-known, and the reference is made for the purpose of establishing this patent in the field of the art, I would say.

Q. That is your explanation. Now, I would like to have the question repeated to you and see if you can answer the question.

(The referred to question was read by the Reporter, as follows:

"Does the Starkey patent teach that range?")

A. The Starkey patent does not specifically teach that range.

530 Q. Now, you gave quite a discussion about your work in making power packs safer for usage. Do you recall that?

A. I do, sir.

Q. I didn't gather from your testimony that you intended to convey the impression that when you went with Ransburg in 1943 there were no power packs that could be satisfactorily used. Am I correct in that assumption?

A. Would you repeat the question?

The Court: Read the question.

Mr. Meroni: I will restate the question. I think I was rather mixed up there.

Q. (By Mr. Meroni): What I am trying to find out is this: I would assume from what you did on power packs from the standpoint of making them safer, that you were trying to improve them from a safety standpoint. Is that correct?

A. That is correct, sir.

Q. There were power packs available in 1943 for commercial usage, weren't there?

A. In what field, sir?

Q. In your field.

A. No, sir.

Q. You mean to say that in—that prior to the time 531 you designed a safe power pack, the Ransburg Com-

pany never marketed an electrostatic system without your pack?

A. That is correct, sir.

Q. In other words, before the company could ever market any electrostatic coating system at all you had to first design a power pack for it?

A. That is correct, sir.

Q. Am I to understand there were no power packs on the market that could have been used for that purpose?

A. I did not make that statement, sir.

Q. Actually there were power packs available that were used in x-ray work and other work, was there not?

A. Power packs were available for use in those fields.

Q. You could purchase power packs in the order of 100,000 volts, could you not, in the open market?

A. At what current?

Q. At a current suitable for electrostatic coating.

A. That is correct, sir.

Q. Well, actually, insofar as your work on the Starkey Patent was concerned in 1943, wasn't it a fact that you considered the power pack shown in Fig. 9 to be conventional?

A. Conventional in the sense of the pack which had been used in electrostatic painting applications up to that time.

532 Q. So there was no novelty in the pack as far as the Starkey Patent is concerned?

A. As far as the Starkey Patent is concerned, there was no novelty in the particular pack that was used.

Q. Was it due to an inadvertence you happened to show a power pack that had an air core?

A. I cannot answer that question.

Q. You do not know?

A. I don't know.

Q. As a matter of fact, the type that would be usable would probably be one with an iron core, is that right?

A. That is correct, sir.

Q. Now, you have talked about conveyance. Before this Starkey Patent was filed it was conventional practice in the industry to use conveyors in spraying, was it not?

A. Yes, it was, sir.

Q. And also conventional practice to use flow regulators of various types, was it not?

A. Yes, sir.

Q. Are you aware of what size orifices can be used in air guns, air spray guns?

A. Generally speaking, sir.

Q. How low do they run usually?

533 A. They can go down as low as a thousandth of an inch, would say, sir.

Q. What would you say was the average size?

A. I would have no way of knowing, sir.

Q. Referring again to this catalogue of Ransburg, that you identified as Exhibit EEEE, and more particularly to pages eight and nine, it was old in the art prior to the Starkey, et al. development to use an electrostatic field to get this wraparound feature, was it not?

A. That is correct, sir.

Q. And that is clearly portrayed in the illustration on page eight of this brochure, is it not?

A. In the upper right-hand illustration, that is correct.

Q. Do these particles, referring to this illustration, when they flow past the article sometimes set up their own field?

A. Since they are charged, they would in a sense have their own field established, although that in all probability would be extremely small because the charge is small.

Q. That would be true of both the No. 1 and No. 2 systems, would it not?

A. That is correct, sir.

Q. So, it is correct to say that there is a field within

534 a field there?

A. There is a field that integrates into a single field due to the presence of the charges.

Q. In the operation of your No. 2 system atomizing heads, is it not a fact that the paint will be atomized and dispersed whether there is an object in front of the gun or not?

A. Generally speaking you would have to establish a field between the atomizing head and some object in the vicinity.

Q. Well, isn't the room the other end of the field?

A. Yes, sir.

Q. In other words, you didn't have to have an object in order for the atomizing head to atomize particles and disperse them?

A. To produce a coating on that object you do, sir.

Q. Ignoring the element of a coating, if you have an atomizing head and paint is flowing into it, and it just is turned down, you can atomize paint and disperse it, even though there is no object in front of you, can you not?

A. Not without establishing a field between that head and some object.

Q. Yes. But you could establish it between the wall over there, couldn't you?

535 A. That wall is sufficiently far away. You may have no field.

Q. If there is a ground area, the area can be grounded, can't it?

A. If it is sufficiently conducting.

Q. Isn't that in reality what is taking place?

A. It is rather hard and difficult to isolate in the sense you have asked me.

Q. Well, I notice the little hand gun you were operating over there, the new one that came out recently—You know what I mean?

A. Yes, sir.

Q. That thing squirts paint whether an article is in front of it or not.

A. Yes, sir.

Q. And it is atomizing—it atomizes and disperses, does it not?

A. Yes.

Q. And it collects wherever paint happens to lodge?

A. Where the field dictates the paint goes to, yes.

Q. So that the atomizing head doesn't know what article the paint is going to lodge on after it is atomized and dispersed, does it?

536 A. It has no way of knowing that, sir.

Q. So from the standpoint of the illustration, shown in Fig. 9, which I believe you said was diagrammatic of the various types of heads and systems shown in the Starkey Patent—is that correct, that statement? Did you say it was diagrammatic?

A. That is correct.

Q. From the standpoint of what is shown there, it would not make any difference whether there was an article, 310, there or not as far as atomization and dispersion of paint is concerned?

A. You would have to have a field established between that head and another object.

Q. Assuming the conveyor is grounded as shown here, and your other terminal is grounded at 321, you would have a field, wouldn't you?

A. If the proximity were such we would have such a field.

Q. Let's assume this is the arrangement you have here. You have a flat article on the conveyor that is grounded. You take that article off. That paint is going to be atomized at 317 and dispersed on the conveyor, 311, is it not?

A. That is correct, sir.

537 Q. So, as far as that illustration is concerned, it does not make any difference whether there is an article there or not?

A. It will go on a conveyor, that is correct, because a conveyor is grounded.

Q. In other words, when the conveyor brings an article under the atomizing head, then the article gets coated as it moves out of the field, the paint is dispersed on the conveyor. Is that correct?

A. That is correct, sir. If the conveyor is of this type that is positioned directly opposite the atomizing head.

Q. The situation would be a little different, wouldn't it, if you reversed the connections and the conveyor was not grounded?

A. You have reversed the connection on me but you have not said what the other connection—

Q. (Interposing.) Suppose the head was grounded and the conveyor was the hot side?

A. The situation as far as the atomization is concerned would then be the same.

Q. It would be the same?

A. That is correct, sir.

538 Q. I would like to call your attention to Interrogatory 23-C. But before doing that I would like to ask you: Did you have something to do with the preparation of answers to interrogatories or admissions in this cause?

A. I did not, sir.

Q. You did not?

The Court: That is Plaintiff's Interrogatories, 23-C?

Mr. Meroni: Yes, your Honor.

Q. (By Mr. Meroni.) We asked the defendant this question: "What are the upper and lower limits of the voltages at which atomization can occur in the suse of said

process in the spraying of all different types of liquid handled thereby?" And the answer was: "As indicated in the above answer to portion A of this interrogatory, electrostatic atomization of a given liquid occurs over a wide range of voltages, the extreme limits of which defendant has not explored."

My question now is: Have you now even as of this day explored the limits of ranges of the voltages usable?

A. We have not, sir.

Q. Now, referring to the confines of the two Starkey, et al. Patents, is there anything in either of those pat-
539 ents, without reference to something else, that says anything about what range of voltages can be used?

A. There is not, sir.

Q. Is there anything in either of those patents that tells you what voltage you can use other than high voltage?

A. Only by reference, sir.

The Court: Which patent was it, that reference to a hundred thousand volts?

The Witness: The patent was the patent covering the process described in Exhibit No. 7, sir.

The Court: That is the detearing?

The Witness: No; No. 1, spraying.

The Court: All right. And the other two patents refer to that patent. That is what you meant?

The Witness: Yes, as well with reference to other patents in the field, sir.

Q. (By Mr. Meroni.) Is there anything in either of these Starkey, et al. Patents that specifically tells you that you can use the voltage that is set forth in any other patent?

A. There—does not specifically tell you that, sir.

540 Q. Merely gives a cross-reference to some other patents among which you say is a patent on the No. 1 system, is that correct?

A. Could I see that to be certain?

Q. Surely, surely.

The Court: Three and four under this exhibit over here. (Referring to exhibit table.) I saw you lay them down.

The Witness: I have such patent here.

The Court: Let's refer to the exhibits.

(Witness tendered Exhibits 3 and 4.)

A. In both of the patents in question specifically with respect to Patent No. '536, reference is made to the Pugh Patent No. 1,855,869 and to method and apparatus for coating articles by Ransburg and Green, Nos. 2,247,963 and 2,334,648 issued in July of 1941. A similar reference is made to the same patent in the Patent No. '417.

Q. Is there anything in that reference that says you can use the same voltages that are disclosed in these other patents?

A. In this specific reference there is not. They are entered there, one reading in the art—I suppose you would go back to those patents as you would to a preceding

541 scientific paper and inquire of such background as might be of interest.

Mr. Meroni: I move to strike the last part of the answer as being volunteered.

The Court: The latter part will go out.

542 Q. Now, in Plaintiff's Interrogatory 25(a), (b) and (c) we asked these questions: "Does temperature constitute a factor in the spraying of liquid by Defendant's aforesaid process of airless electrostatic spraying and, if so, (b) to what extent and (c) if a range of temperatures is involved, what is the range?"

And the answer was: "25(a) Temperature of the liquid constitutes a factor in the spraying of the liquid in Defendant's process of airless electrostatic spray coating. (b) To the extent that it influences viscosity. (c) Defendant has

not explored the limits of the range of temperature involved."

Is it still true that the Defendant Dansburg has not explored the limits of the range of temperature that should be involved and would be involved?

A. That is correct.

Q. And is it still true that temperature is a factor?

A. That is correct, sir.

Q. Does either of the Starkey Patents in suit, Exhibits 3 and 4, make any reference to temperatures at all as far as you know?

A. They do not.

543 Q. In Interrogatory 24 of Plaintiff this question was propounded: "(a) Will Defendant's aforesaid airless electrostatic spraying process atomize all kinds of known liquid and, if not, (b) what are the limits of the range of liquids that can be atomized by such spraying process?"

And the answer was: "25(a) No; 24(b) Defendant does not know the limits of the range of liquids which can be atomized by such spraying process."

Would you say it is still true that Defendant Ransburg does not know the range of liquids that can be atomized by the spraying process of the Starkey et al. Patent, Exhibit 3?

A. That is correct, sir.

Q. Is there any disclosure, as far as you know, in the Starkey et al. patents, Exhibits 3 and 4, that make any reference to the limits of the ranges of liquids that can be employed?

A. No, sir.

Q. Is it not a fact that there are some liquids that you could not atomize?

A. That is correct, sir.

544 Q. Can you give us some instances?

A. Molton glass.

Q. Any others?

A. Tar.

Q. In Interrogatory 117 of the Plaintiff propounded to the Defendant we have this question: "(a) Was the Defendant ever advised by Dr. Emery P. Miller or anyone else that prior to October, 1943, it was old in the scientific arts to use an electrostatic field for effecting atomization and spraying of liquid particles and, if so, (b) What was the name of such person, (c) The identity of such prior use and (d) The date when such advice or knowledge was received?"

The answer given was: (a)(b)(c) and (d) Since coming into existence Defendant has known that it was old prior to 1943 to use an electrostatic field for effecting atomization and spraying of liquid. At least one of the officers of the Defendant possessed such knowledge at the time of Defendant's incorporation on January 1st, 1948."

Are you aware of that knowledge, Dr. Miller?

A. Which specific knowledge are you referring to 545 in your question?

Q. That it was old in the scientific arts to use an electrostatic field for effecting atomization and spraying of liquid articles.

A. Yes, sir.

Q. Do you agree it was old prior to October, 1943 to do that?

A. Yes, sir.

Q. Now, referring to Claim Two of the Starkey et al. process patent, Exhibit No. 3, and more particularly to the single step there recited we find this: "The step of maintaining between the head and the article and electrostatic field which electrostatically effects said atomization, dispersion and deposition."

Is it your position that the novel part of that claim was the deposition of the electrostatically atomized and dispersed particles?

Mr. Hume: Your Honor, I object to the novel part of the Claim. This witness hasn't qualified as being a claim reader, interpreting legal aspects of a claim. If he wants to frame his question in terms of facts that is another
546 thing, but when we get down to claims, as to what their legal effect is and whether novelty resides in the claim is purely a legal interpretive question, Your Honor.

Mr. Meroni: I am astounded at that in the light of the interrogation on all of these claims, element by element, that went on for hours yesterday, Your Honor. It seems to me that this witness is well qualified and at the inception he was asked—

The Court: I don't know that he covered the subject of novelty, what the novelty was. He was asked whether these factors were present in the figures of Exhibits 8A and 8B, 11A and 11B and 17A, B and C.

Mr. Meroni: He was also asked at the start, Your Honor, if he knew the art.

The Court: All right, I will be interested in you correcting me on that, my memory on that.

Mr. Meroni: I have a note here. Just a minute, I will find it.

The Court: All right.

547 Mr. Meroni: My recollection is—I can't put my finger on it right now, but I will—that he was asked initially if he made a study of the art and he said he had.

Mr. Hume: Your Honor, this question is directed to the novel part of a claim, and a claim is a legal statement which is to be interpreted in the light of legal considerations that concern claim writing and claim reading; and

to phrase the question on the basis of a novel part of a claim is improper for this witness.

Mr. Meroni: He was qualified on this basis and he has had with him, I believe, the whole time the prior art.

Mr. Hume: I don't direct my objection to any questions that deal with this witness' knowledge of factual statuses of matters.

Mr. Meroni: Here it is, Your Honor. I am reading from Page 229 of the record.

"Q. Did you have anything to do with the research that led up to the development of the No. 1 System?

"A. The No. 1 System was actually developed and
548 I helped advance it, I'd say.

"Q. Did you have occasion at that time to make a study of the state of the art generally as it existed in the commercial field with respect to electrostatic painting?

"A. After I came with the organization I did look into that art, yes, sir, and make myself acquainted with it."

Now, I am entitled to know in the light of his study and background whether he considers this part novel.

Mr. Hume: Your Honor, the question is still couched in terminology of the part of the claim that is novel, and I submit that that involves a legal interpretation of the claim writing. The testimony that he gave yesterday does not justify any basis for the calling of a conclusion of this kind.

The Court: Will you read the question and the objection?

(The Reporter read the following: "Is it your position that the novel part of that claim was the deposition of the electrostatically atomized and dispersed particles?

549 "Mr. Hume: Your Honor, I object to the novel part of the Claim. This witness hasn't qualified as being a claim reader, interpreting legal aspects of a claim. If he wants to frame his question in terms of facts that is

another thing, but when we get down to claims, as to what their legal effect is and whether novelty resides in the claim is purely a legal interpretive question, Your Honor.")

Mr. Meroni: May I make one further comment, Your Honor. You will recall, Your Honor, that in the extensive examination of this witness they endeavored to first show what the state of the art was by Chart 7, and also with reference to the spray gun system of Binks using air alone. Then they endeavored to show what Starkey had, then they endeavored to show where it was embodied in the No. 2 System. Now, they were trying to show what was new in the field as between what went before and what went afterwards. And they asked him about his claim. They went through all of these claims, element by element. And all I am asking him now is if he considers that a novel part of the claim. I don't think that requires any legal interpretation. That is a comparison with his back-
550 ground and knowledge.

Mr. Hume: Your Honor, these claims are combination claims, we submit, and where the novelty of a claim resides is purely a matter for this Court to determine. There are steps here that Mr. Meroni chooses to call the single step. It is phrased in the language of the step of atomizing, dispersing and depositing from a single field. But the point as to where the novelty resides is purely an interpretation of this legal document.

Mr. Meroni: I am not asking if it is invention, Your Honor. The prerogative of the Court is to determine whether it is invention. But this is a fact question which he can answer, whether it is a matter of fact.

Mr. Hume: This question is woven with all sorts of inuendo, and I submit it is an improper question.

The Court: I will overrule the objection. I believe the

witness can take care of himself. We don't have a jury here.

You may answer that, sir.

The Witness: Could I have the question read again, sir?

551 Mr. Meroni: Certainly.

(The Reporter read the following: "Is it your position that the novel part of that claim was the deposition of the electrostatically atomized and dispersed particles?")

A. Obviously, since I am going to be calling upon my background and my feelings in this regard to decide this question, in answering it I would have to go to the specification and read that specification, which I have done. In addition I would have to call upon my own background in the field and in my training as a physicist. I'd also have to call upon what reading I had done and what other people acquainted in the field had to say about it. And integrating all that experience, that reading, I am convinced that the steps of using an electrostatic field to atomize, disperse and deposit material represented a new and novel step in the art.

552 Q. You admitted before that it was old prior to October 1943 to atomize and disperse liquid particles, did you not?

A. That is correct, sir.

Q. And do it electrostatically, is that correct, sir?

A. Yes, sir.

Q. Now, when we add the word "coating" to that series of two things, you say, calling upon your background, that that is novel, is that correct?

A. That is correct, sir.

Q. Yet you admitted in connection with Figure 9 that the Starkey, et al. process would work equally as well as

far as atomizing and dispersing paint was concerned, whether it was coating an object or not, did you not?

A. This figure in my estimation is representative of a system of coating which embodies all of the steps of atomization, dispersion and application of that material under the influence of a single electrostatic field.

Q. Do you recall testifying during the deposition as follows:

"Q. 160: Then what, if anything, was considered by you and Mr. Starkey at that time to be sufficiently new about the idea that would cause you to record it?"

And your answer was:

"A. The concept of using electrostatic forces alone 553 to atomize, disperse and deposit these materials."

Do you recall that answer?

A. I do, sir.

Q. Now, you say, as to the No. 1 System, shown in Exhibit No. 7 that that is different because you use another means in the process of painting, namely, air means, to get the paint into the field, is that right?

A. This device in this system does not incorporate the atomization, deposition and the dispersion of materials by a single field.

Q. You are not using the forces alone to atomize, disperse and deposit paint, is that right?

A. That is correct, sir.

Q. Now, in the No. 2 System, such for example as shown on this Exhibit 17-B, wasn't it a fact that the electrostatic field alone, without the use of centrifugal force, was unable to throw paint at the article?

A. Could I have the question reread?

(The preceding question was read to the witness by the Reporter.)

A. This system represents a combination of actions and

steps, and when you omit any one of those steps, obviously the system is not going to work.

554 Q. Well, you are not using electrostatic forces alone in that system, are you, to effect painting?

A. That is correct, sir.

Q. And as I remember, the operation of this device, if you arrested the rotation, but left the paint on, and the electrostatic field on, the paint dripped out of it without being dispersed from the edge of the disk, is that right?

A. That is correct, sir.

Q. How fast do those disks turn?

A. The disks that were demonstrated generally use 900 rpm.

Q. Isn't that fast enough to effect some breaking up of liquids alone?

A. Yes, sir.

Q. Now, I hand you Exhibit 8-B. In that exhibit you have testified that Figure 9 is a diagrammatic illustration of the system that is common to all forms of the Starkey et al. device, is that correct?

A. That is correct, sir. This is a diagrammatic representation of the manner in which these various devices are to be employed.

Q. You have also stated before that if you had one point or one aperture where you had a globule or particle of
555 liquid, that that would atomize off at one point. Do you recall so stating?

A. I remember a statement concerning that matter.

Q. I beg your pardon?

A. I remember a statement concerning those points.

Q. Well, you don't deny the fact that the Starkey, et al. device will work if you only had one pin or one point, do you?

A. The process embodied in this invention does not visualize the use of a single point.

Q. Yes, but as far as the atomization, dispersion and coating, it would work, wouldn't it, as to one point or one globule of matter?

A. That is correct, sir.

Q. If you wanted more than one, you could add a number of points, couldn't you?

A. You would then be establishing a situation which would be under this particular patent.

Q. The patent doesn't teach how many to use, does it?

A. It indicates that generally it should be distributed over an extended atomizing zone, I believe, the patent.

Q. Well, does it give any dimensions or numbers in that regard?

556 A. It does not give any dimensions or numbers.

Mr. Meroni: I would like to have this chart marked as Exhibit FFFF.

(The plaintiff, for purposes of identification, handed the Reporter a certain document for marking, and which was by said Reporter marked Plaintiff's Exhibit FFFF.)

Q. We have here a chart, and I will ask you if you recognize on the right-hand side of this chart Figures 8 and 9 as being figures taken from the Starkey patent 2685536, Exhibit No. 3?

A. These figures appear to have been taken from that application.

Q. You are familiar with Mr. Zeleny's articles, are you not?

A. I am.

Q. You are familiar with these illustrations that are here portrayed as having been portrayed in the articles, or would you rather I showed you one of his articles to make a comparison?

A. There are similar figures in those articles and I presume you have taken it from them.

Q. Well, to save time, you have read the articles deal-

ing with these figures, have you not? Haven't you
557 got copies?

A. I have read the articles dealing with some of the figures.

Q. Have you got copies of them?

A. Yes, I have, sir.

Q. Now, according to Mr. Zeleny's article, he feeds liquid through this glass tube down to Point A, doesn't he?

A. That is correct, sir.

Q. And he has Point A as a part of the electrostatic circuit, which is grounded at G, is that correct?

A. That is correct, sir.

Q. And he states that "Upon activation of the electrostatic circuit, liquid is atomized and dispersed at Point A and collects on B." Are you aware of that?

A. I don't recall that he uses that specific wordage, sir.

Q. Do you recall his stating that it collects on B?

A. After a long time he states it does collect.

Q. Is that electrostatic atomization, dispersion and precipitation of liquid?

A. I have no way of telling from Zeleny's article, sir.

Q. His articles were published in the Physical Re-
558 view. Is that a well-known publication?

A. A very well-known publication, sir.

Q. Do you physicists subscribe to that, sir?

A. We do.

Q. Do you deny that he disclosed at least as early as 1915 the idea of electrostatically atomizing, dispersing and precipitating liquid particles?

A. In order to deny or not deny any statement, I have to rely upon my reading and interpretation of Zeleny's articles.

Q. Based on that, what would you say?

A. Since they appear in the Physical Review I feel I am qualified to read them and my understanding is that Mr.

Zeleny undertook this particular problem basically to investigate the nature of the discharge which occurs at a point in space. He started out by using, and this accumulates from a series of these articles, by using metal points. The metal points were sporadic in their current and emission, electrical emission, which occurred from them, so he conceived the idea of producing such points which would be reproducible which would remain clean without oxidation by using a capillary tube such as shown in A in this particular picture, and drawn down to a fine point, and pre-
559 senting there a liquid surface, and his whole interest now was to try to decide what would be the characteristic of the electrical discharge which would take place from such a pointed surface. He knew what they were in connection with the metals. They were sporadic and indefinite, and he hoped to find out additional information concerning this phenomena by making an arrangement of this type and he set up this device which is shown in Figure 1. The distances and number of points involved are rather definitely set out. A is a single small point which is presented as you have indicated to an electrostatic field, sir. His interest was in no way connected with the fact that liquid accumulated on B other than the fact that after he ran the thing for a long period of time, liquid appeared. To the best of my knowledge, he does not say how it got there, by what technique or method it got there. He simply cites it does occur there and this brings to his mind, at least the fact that this collection might be used for the determination of whether or not the current from Point A to Point B, thence is carried across there by air or by
560 these liquid particles, and as a result, a very long drawn-out examination where he observed Point A under a microscope whose magnification was quite large, and he detected certain disturbances at Point A and he drew certain conclusions concerning the electrical surface

density at that point, certain conclusions concerning the vibration of the liquid at that point, and certain conclusions concerning how the current is carried from A to B. He put nothing, as I could find, concerning the use of this process as a coating operation. Certainly, I would not have gone to Zeleny to learn what I did about electrostatic coating.

Q. It was available?

A. It was available if I wanted to go there.

Q. It was widely circulated, was it?

A. Widely circulated in the field, yes.

Q. He said in the article, you recall in this Volume 18, Page 75, "After the current from the conical form of discharge with alcohol has been allowed to flow for some time, the plate underneath the point becomes wet with a disk of liquid which has a diameter about equal to the distance between the point and the plate. From the amount of liquid thus carried over, it appeared possible that 561 the whole current from the alcohol point might result from the charges carried by minute drops leaving the charged surface and impinging on the plate."

Do you recall that?

A. I recall that statement, sir.

Q. Do you recall that he had numerous photographs showing the character of the discharges?

A. Which were not too clearly distinguished as being electrical discharges or liquid.

Q. But there are such illustrations?

A. Such illustrations as you have shown there in the article.

Q. When did you first become aware of that article or those articles of Professor Zeleny?

A. I knew Professor Zeleny was working in this field in 1931. I learned of it.

Q. Were you acquainted with him?

A. I was not acquainted with him but I knew of his work through another outstanding man in the field; Professor Lowe from the University of Southern California.

Q. Was Professor Zeleny well recognized in the field?

A. In the field of electrical discharges, he was.

Q. In that book of patents or material that you have
562 before you, is there a copy of the Heis patent?

A. There is, sir.

Q. Have you studied the Heis patent?

A. I have read the Heis patent, yes, sir.

Q. And that is Heis patent No. 1475995?

A. That is correct. I presume that is the one you are referring to.

Mr. Meroni: We have constructed what purports to be a model and I will ask the Court Reporter to make this for purposes of illustration and identification as Plaintiff's Exhibit GGGG.

(The plaintiff, for purposes of identification, handed the Reporter an object for marking, and which was by said Reporter marked Plaintiff's Exhibit GGGG.)

Q. Do you understand in Figure 3 of Heis, there is shown a head or applicator comprising two disks, 12 and 13, held together with spacers, 14, therebetween so as to define a peripheral discharge at 15?

A. I do not understand that this particular device is an applicator head at all.

Q. You understand it is an atomizing head?

A. I do not so understand.

Q. You say it does not atomize?

A. There is no indication in this that this device
563 is used in any way for atomization.

Q. Isn't it used to break up particles of gas?

A. Not specifically described as such.

Q. You say it does not break up gas particles?

A. It is not described as such.

Q. Do you understand that fluid is fed through the central opening into the space between the disks? Do you understand that much?

A. That is correct, sir.

Q. And do you understand that an electrostatic field is set up in the disk at the edge, with the voltage gradient at the edge?

A. There is no showing of that in Figure 3.

Q. Is it shown in Figure 4?

A. Yes, it is also shown in Figure 4.

Q. There it shows it in the circuit, does it?

A. It does. It also indicates that the fluid, as you have described it, is entering the slot rather than leaving it.

Q. In that particular form?

A. In the form indicated in the patent.

Q. Now, in the form shown in Figure 3, the fluid enters at 16 and progresses downwardly and then into the 564 passage, 15, isn't that correct?

A. That is correct, sir.

Q. So that the fluid there enters the opposite direction from what is shown in Figure 4?

A. Could I ask are you using the word "fluid" in the broad physical sense?

Q. In the broad sense, yes.

A. It does.

Q. Let's be in accord on that. I think it is common practice in the arts to refer to fluid as embracing both gas and liquid, isn't it?

A. That is correct.

Q. It is a generic expression for both?

A. That is correct.

Q. I have here a model which I would like to have you compare with Figure 3 and to state whether as far as the disk construction goes, you would consider it representa-

tive of the device. You may undo the screws. You might know that we just use the screws as spacers so it could be taken apart.

A. This device is generally the same as that shown in the Figure 3 with the exception of the fact that there is incorporated in these two disks a central cavity
565 which is not shown here specifically, and that the entrance tube is not specifically attached to the top disk, sir.

But it shows two disks that are held together with a spacer between them?

A. That is right, sir.

Q. And broadly that is what Figure 3 shows, is it not?

A. That is right. I don't know that the sizes are comparable, but generally speaking the structure is as shown.

Q. I am talking about the structure apart from any functions or purposes.

A. That is correct, sir.

Mr. Meroni: Now, then, while we are on that point, I would like to have this chart marked for identification as Exhibit HHHH.

(The plaintiff, for purposes of identification, handed the Reporter a certain document for marking, and which was by said Reporter marked Plaintiff's Exhibit HHHH.)

Q. Now, Mr. Miller, I would like to know if you remember or recollect during Mr. Hume's examination of you that he interrogated you about Exhibit 12?

A. I do, sir.

Q. You recognize the left-hand side of this chart, Exhibit HHHH, as being a reproduction of Exhibit No. 12?

A. It apparently is, sir.

566 Q. Now, on the right-hand side do you recognize the top figure as Fig. 3, being a reproduction of Fig. 3, of the Heis Patent No. 1,475,995?

A. I do, but I object to the legend you place on that figure.

Q. But disregarding the legend, you agree that the illustration is a reproduction of that drawing matter?

A. The drawing matter below the legend is certainly a reproduction of Fig. No. 3.

Q. Referring to the drawing matter on the lower right-hand part of the chart, under the heading "Electrostatic Liquid Atomizing and Spraying," do you recognize those as being Figs. 1 and 2 of the Zeleny publications?

A. They are figures which appear in the publication. I don't know that it is specifically Figs. 1 and 2. That could be checked.

The legend, likewise, I object to in Fig. 2.

Q. I didn't ask you about the legends; I asked you about the drawing matter. I understand you object to the legend.

A. That is correct, sir.

Q. Now, referring to the lower-most illustration, Fig. 2, do you recall from Professor Zeleny's articles the fact that he illustrated and mentioned these streamers that emanated from the end of the atomizing point?

567 A. As I recall, he describes this figure as a phenomena which occurred and which he observed under the microscope at the end of the tube, immediately above the letter "C" here, which tube was about a fraction of a millimeter in cross-section, and he does not specifically describe those points as being anything other than dark streaks which occur in his field of view.

Q. Do you object to his use of the microscope?

A. I do not, sir.

Q. Didn't you, as a matter of fact, find it necessary in connection with 18-B to amplify that? What was it? Twenty-five times?

A. That is correct, sir.

* * * * * *

568 Q. (By Mr. Meroni.) I think the Court would like to know in your own words how Mr. Starkey came to make this original conception back in '43. Do you recall testifying about that before?

A. I do, sir.

Q. Will you tell— Do you remember the paint-brush incident?

A. I do, sir.

Q. Will you tell the Court about it, please?

A. At that time in October, 1943, the Ransburg organization was preparing an exhibit of the No. 1 process which was to be taken to a metal show in Chicago, primarily to, shall I say "kick off" or introduce our process on a public scale to industry. As a part of that operation it was
569 our desire—of that preparation, perhaps, I should say, it was our desire to conduct a demonstration which would convey the advantages and the over-all operational characteristics of our process to the general public or people interested in the field. We constructed at that time a platform upon which there was located a high voltage unit and a column on which there was mounted a spray gun, and it was so arranged that a spray booth would be positioned diametrically opposite the gun, so that in a sense, or in essence, an object such as a small canister, a small can-type container, could be hung from a grounded support centrally in an electrostatic field and it was our purpose to project into that field the atomized coating material from the spray gun, and would have it collected on the can on all surfaces without rotating the can so as to portray to the observer the wraparound characteristics and, therefore, the increased efficiency of our process. Likewise, there was incorporated into the device a detearing arrangement to demonstrate the detearing process. In the process of preparing that particular exhibit there were a number of boys working on it. Mr. Starkey happened

to be one of them, he was charged specifically with the responsibility of painting or finishing that particular
570 device. There were other people present, working on the device, whose obligation it was to see that the electrical part of it was so designed and wired up that it would effectively work. Consequently, a number of people were working around the device at that time. As a part of the spraying—Pardon me—As part of his painting operation with the brush, Mr. Starkey was going over the control cabinet and the platform on which it was with a paint brush, actually finishing the preparation for the show. At the same time there was one of the other boys, as I said, involved in attaching and testing the high voltage supply. In the process, the paint brush Mr. Starkey was using came into the influence of the field and positioned opposite the metallic grounded side wall of the control panel, and he observed that the, under those circumstances, the coating material atomized and broke up off the ends of the brush and was collected on the surface, the grounded surface of the control panel, and the invention, I think, was born at that point.

Q. In other words, the paint brush was acting as an atomizing head?

A. In the sense we have been using "atomizing head" here, that is correct.

571 Q. And the bristles of the brush constituted points from which the globules of paint were atomized and dispersed?

A. That's correct, and a point to which the material was fed from the back side of that brush.

Q. Now, we have certain admissions here, I would like to read to you to see how they compare with your recollection of the facts as you stated them, sir.

"No. 14. The initial act of conception in connection with the subject matter of the Starkey and Ransburg Patent

in suit was the observation by Starkey of the behavior of a wet paint brush in an electrostatic field."

The answer was: "Admitted." Do you agree with that statement?

A. I do, sir.

Mr. Meroni: My attention has been called to the fact that I stated erroneously, and I want to correct it—it should have read:

"That an initial act of conception in connection with the subject matter of the Starkey and Ransburg Patent in suit was the observation by Starkey of the behavior of a wet paint brush in an electrostatic field."

Do you agree that is an accurate statement as far
573 as your knowledge goes?

A. That is correct, sir.

Q. Now, it didn't take two people to make that conception, did it; it only took one?

A. The development of the process of the system actually took two people in the form presented in this patent.

Q. As far as the paint-brush incident, that was only by Mr. Starkey?

A. That is correct, sir.

Q. 62: "For the purpose of this lawsuit, and in connection with defendant's previous admission 14 as to its use of a wet paint brush, does the defendant admit that when the paint brush was disposed in an electrostatic field, it emitted liquid paint which was atomized, dispersed and deposited on an article such as paper?",

The answer was: "No. However, defendant admits that when the paint brush was effectively arranged as one terminus of the electrostatic field and the article was effectively arranged as the other terminus of the field, liquid paint was atomized from the brush and the atomized particles were dispersed and deposited on the article."

573 Is that admission by the defendant in accord with your recollection of the facts?

A. That admission is, sir.

Q. 63: "Does the defendant admit with regard to its original paper Exhibit (PX-B)—"

Mr. Meroni: I might state for the record, your Honor, that will be produced in depositions and before I read this I had better call the witness' attention to what that was.

Q. (By Mr. Meroni:) Do you recollect when we took your deposition we had the original piece of paper that had been used in connection with the Starkey paint-brush incident?

A. That is not my recollection, sir.

Q. You have no recollection of that?

A. I remember your having a piece of paper, but that piece of paper was not a piece of paper used in connection with the Starkey paint-brush incident.

Mr. Meroni: I believe the evidence will show that. Do you disagree with that?

Mr. Hume: I think that piece of paper came subsequent to the activity there. Actually my personal recollection at the moment is a little hazy but the record will show 574 that I think it came a little later.

Mr. Meroni: You have the original exhibit PXB. You have the original. We only have a copy of it. I will pass that one for the time being. We can't find it right now.

(Mr. Meroni tendered photograph.)

Q. (By Mr. Meroni.) I hand you what purports to be a photograph of a piece of paper with some paint deposits on it, marked "11/5/43" signed, "Emery Miller, Al Starkey, and Hillman." Will you tell us what that is, this being a photographic reproduction furnished by Ransburg Counsel?

A. This is a piece of paper which was coated by being positioned on top of a conductor electrode in spaced relation to a paint brush wet with paint and which was charged to high voltage and it happened to have the date so indicated. I observed that and my signature appears on it.

Q. (By Mr. Meroni.) And the deposits on this came from the bristles on the paint brush?

A. That is correct, sir.

Q. Now, referring back to the Admission 63:

"Does the defendant admit with regard to its original paper exhibit (PX B) used in connection with the 575 initial paint-brush inception of the alleged Starkey, et al invention, the paint that was applied to the paper was electrostatically atomized, dispersed and deposited on the paper?"

And the answer was, "Yes."

Do you agree with that admission?

A. I do, sir.

Q. 64: "Does the defendant admit as to both of its two Starkey, et al Patents in suit, 2,685,536 and 2,794,417, that the earliest act of conception that it will rely upon herein is the paint brush activity commencing on or about October 8, 1943, and documented in a notebook as of October 29, 1943, with the following notation, 'Al Starkey suggested using the detearing action from the bottom of a brush as the atomizing agent to spray items passing under this arrangement'?"

The answer is, "Yes."

From your knowledge of the facts and to the extent you participated, do you agree with that admission?

A. I do, sir.

* * * * *

582 Q. Mr. Miller, I hand you this bulletin which has been identified as Exhibit IIII and ask you if you have seen it or one like it before, and, if so, to identify it.

A. I have seen a bulletin like this one before, sir.

Q. Do you recognize it as an official bulletin of the Ransburg Company?

A. Yes, it is, sir.

Q. Does it relate to No. 1 process equipment of the type you have been testifying about in this proceeding?

A. It does, sir.

Q. More particularly, does it relate to equipment such as that illustrated in these charts 17A, 17B and 17C which you produced here in Court?

A. It does, sir.

Q. On the next to the last page of this bulletin I noticed under the heading "Equipment" this statement: "Ransburg supplies the complete automatic coating equip-
583 ment consisting of the source of electrostatic potential, electrical controls, insulators, atomizing heads and coating material handling system."

Is that equipment that is supplied of the order that is shown in these charts, 17A, 17B and 17C?

A. That is right, sir. The equipment referred to that you have just read would be of that order.

Q. The statement further asserts: "All that the user needs to furnish is the conveyor, work holders and solvent ventilation means. Drawings of the proposed setup are included in our engineering services." And I assume that the conveyors and work holders that are alluded to are similar to those generally represented on these charts, 17A, 17B and 17C.

A. That is correct, sir.

Q. Now, it was my understanding that these charts, 17A, B and C, were produced under your supervision. Is that correct?

A. That is correct.

Q. How did you go about producing them?

A. Original drawings were made by our draftsmen and these drawings appeared as part of our service manual
584 for this type of equipment. When it was desired to have such drawings produced for reproduction here in the Court they were handed to our attorneys, and they in turn had them photostated, I understand, in Chicago.

Q. Did you have anything to do with the actual making of the charts such as the blowing up of the pictures and the coloring of them?

A. I had something to do with the coloring of them, sir.

Q. Tell the Court just what you did have to do in that regard.

A. I checked and approved the coloring and had the draftsman who was responsible for that coloring make certain changes that I thought were consistent with the program that was outlined here.

Q. Now, I take it you did that in collaboration with the attorneys?

A. I did, sir.

Q. Now, let's refer to this chart 17A. There you have three bell type atomizing heads, do you not?

A. That is correct, sir.

Q. Do you call them bell type or cone type? What is the terminology usually used?

585 A. We refer to it as the bell type system.

Q. Now, let's assume we took off two of these bells and just left one there. Would you get a satisfactory coating job on that sheet using only one bell?

A. On a portion of that sheet you would, sir.

Q. Isn't it a fact that when you operate the bell you deliver to the sheet a series of overlapping holes or circles of paint?

A. I would have to ask you to read that question again, please.

(The preceding question was read by the Reporter.)

A. The pattern of the bell on a stationary sheet would be an annulus or donut-shaped pattern, and the motion of the sheet through that pattern possibly could be referred to as a series of overlapping circles such as you referred to, I think.

Q. If you used only one bell wouldn't you have a situa-

tion where the paint that went,—where the middle of the donut is would be thinner than the paint where the annulus is?

A. That is correct, sir.

586 Q. So that in order to get a correct satisfactory painting job, you use multiple heads and lap them?

A. In order to obtain the ideal painting job which would have absolute uniformity we'd have to use the multiple patterns in order to overlap them. That's correct, sir.

Q. Just so that the Court will understand what occurs in coating when you use multiple bells, I am going to ask you to repeat just what transpires in the application of these circles or ovals of paint and how they are overlapped to make a uniform coating on the sheet.

A. The coating material, as previously described, is delivered from a source—in this Exhibit 17A shown in yellow—and is pumped by a pump unit, which is so designated on this exhibit, through a hose or carrying device to the back of the atomizing bell. That coating material appears on the inside surface of the atomizing bell as a small cross-sectional fluid flow, and that is spread out into a thin uniform film on the inside surface of the atomizing bell. At that point the film comes under the influence of the electrostatic field gradient, and it is atomized from there, dispersed into that field, and it is precipitated on the

587 surface of the article positioned opposite the atomizing device.

Q. In what shape?

A. In the special case of a flat sheet that shape would appear to be an annulus, which would essentially appear as a donut laid upon a sheet. And in other cases, however, it would take the shape of the object on the conveyor. In the case of the special object which is a flat sheet that annulus, if the sheet were stationary, would appear as a stationary annulus. As the sheet moved past the atomizing

head, obviously the sheet in a sense collects and integrates the coating material which is distributed to the various positions in that annulus. And the result would be that a coating would be applied to the sheet from the outside of the pattern at the top, let's say, to the outside of the pattern at the bottom. And that would have continuous, complete uniform coating throughout.

As pointed out, it would not be absolutely uniform in film thickness from the top to the bottom of that area, but might well be considered a satisfactory coating if one did not require such uniformity.

In the case of large flat sheets which are finished
588 white that uniformity might be apparent, and so, in order to avoid that lack of uniformity one combines several of these donuts in overlapping fashion so that by a process of integration the voids in one will be supplemented by the high spots in the others, so that from the top of the pattern of the outside—correction—from the top of the pattern of the first bell to the bottom of the pattern of the last bell you will have a completely uniform film thickness.

Q. In order to illustrate this point for the purpose of the record, would it be correct to say this: That if you lay down a donut of paint and you advance the donut on the sheet that it is being laid, as the succeeding donuts lap that you would have a multiple of thickness where the donut material exists but only a single thickness or a lesser thickness where the holes are if you had just a single bell? Is that a clear explanation of that?

A. I am sorry, sir. You lost me when you talked about the combining of the patterns and then ended up by referring to a single pattern.

Q. Well, what I am trying to say, let's assume you
589 have just one bell and you are laying down a series of ovals and your sheet is moving progressively for-

ward. As those ovals lap each other, where they lap over the hole there is less material than where they lap over the annulus of the paint; and isn't that the reason why you have to have staggered lapping using a multiple of bells?

A. If I might explain it in my own words perhaps that would be a better thing.

Q. That is all right.

A. One has from the bell an annulus which is in the shape of a donut. The hole in the donut may be large or may be small. Because you have a void, however, in the hole of the donut, a sheet or an area of the sheet which is carried diametrically through the donut will obviously only receive the coating material which is distributed into the side portions of the annulus.

Now, if you consider the same sheet to be moved through that portion of the donut which is above the hole then it will receive the coating material which is distributed into the solid portion of the annulus which is above the hole. Obviously, those two amounts of material would be different. And in the case of an object or a pattern with
590 a small hole they would be slightly different. In the case of a pattern with a large hole they will be considerably different.

And so, as you integrate that coating over a flat sheet you end up with a covered band of coating on the sheet which has a peak at the top and a peak near the bottom with a valley in the center, so to speak.

591 Q. Now, let's assume you are using only one bell and let's assume you start moving the bell farther and farther away from the sheet. How far can you move it away from the sheet and still deposit paint on the sheet?

A. That would depend upon the proximity of other objects in the vicinity.

Q. Well, even if you removed it so that the voltage existent on the bell would no longer be effective to project

the paint onto the sheet, wouldn't the paint, by virtue of the particles being oppositely charged, seek some surface and endeavor to establish a field of its own?

A. Those paint particles would originate primarily because of a field which existed between this bell and some other object in the vicinity. Now, if the sheet happens to be that object, then the paint which originates will follow those lines of force to the sheet. If you back the head sufficiently far away from the sheet, the floor becomes the closest object. It likewise now becomes an object to be painted so far as the bell is concerned. There is a single field which exists between the bell edge and the floor and the paint will come off and go to the floor.

592 Q. So that if we move the sheet out away from the bells, you don't interrupt in any way the atomizing and dispersing of the paint unless you turn off the field and turn off the paint, isn't that right?

A. You have destroyed your coating operation as far as that sheet.

Q. You are not coating the sheet but you might be coating the framework or the floor?

A. That is correct, but that is a different process.

Q. Well, you say it is a different process. It is not coating the sheet in that event? Is that clear?

A. That is correct.

Q. But it is coating something else?

A. Some other object, that is right, sir.

Q. And as far as the atomizer is concerned, it doesn't know what object is being coated?

A. Being inanimate it has no such knowledge.

Q. Now, let's proceed to the chart, 17-B, that shows a centrifugal type disk emitter instead of a rotary bell, doesn't it?

A. This is an atomizing disk emitter, that is correct.

Q. And it is a rotating disk?

A. Yes.

Q. And it effects discharge of paint to the edge of
593 the disk by centrifugal force?

A. It sends the material to the edge of the disk at a controlled rate by the centrifugal force due to rotation, that is correct, sir.

Q. Now, let's assume that you didn't have this reciprocator and just had the rotary disk. Can you imagine a condition of that sort?

A. Such a condition is shown in 17-C.

Q. But there you have the disk mounted at an angle. You have it tilted, do you not?

A. You assume that we stopped the reciprocation in this picture?

Q. Yes.

A. All right.

Q. And you disposed an object to be coated in front of the disk, say, a letter H, that was of a greater height than the dimension of the edge of the disk. Now, could you effect complete coating of that letter H if you didn't reciprocate the disk up and down?

A. Obviously if the letter H extended from the conveyor to the floor and the disk was stationary, I couldn't possibly coat that letter H completely.

Q. So that in order to effect a complete coating of an article that is of a dimension greater than the thick-
594 ness of the pattern of paint coming from the emitter, you have to provide some other medium of movement, do you not?

A. That is correct, sir.

Q. And that can be in the form of relative movement between the object and the emitter?

A. That is correct, sir.

Q. The Starkey patents make no disclosure of any such movement, do they?

A. No. This is certainly not a new invention with the Starkey patents since movements of all sorts for spraying devices were found necessary in past experiments.

Q. And the Starkey patent does not show any disclosure of using a plurality of emitters and having the patterns overlap, do they?

A. In the case of the Starkey patent, it specifically recites establishing an extended atomizing zone so that you essentially get the overlapping of the various elements of the atomizing zone to form over-all integrated pattern of the device.

Q. I didn't mean to interrupt you, but you don't mean to contend that there is any reference in the disclosure of Starkey to overlapping the patterns?

595 A. I don't know that it specifically exists there.

Q. Now, with reference to Exhibit 17-C, there you have an inclined rotary type of disk emitter, do you not?

A. That is correct, sir.

Q. And the action of that disk is such that on one side, let's say on the right side, where the disk is tilted downwardly as the paint is emitted, it covers the lower part of the articles and as the articles are moved you progressively cover the article in diagonal fashion upwardly with the rotation of the disk, isn't that right?

A. As the article is carried around the conveyor, that portion of the part which is coated, as it moves into the loop, will be that portion which is exposed to the pattern from the atomizing disk and if the disk is tilted as the object is carried around the loop, that portion shifts the pattern and the pattern in a sense moves up over the object and it completes its coating.

Q. In other words, the paint coats upwardly on the object as the articles relatively orbit around the disk?

A. Or downwardly.

Q. Depending upon the angle of inclination of the disk?

A. That is correct.

596 Q. So there you have to depend, in order to get complete coverage of the article, on an orbital movement of the article about the disk, do you not?

A. Relative movement of the two. I don't like the word "orbital," sir.

Q. Well, the articles go substantially in a circular path around the disk, do they not?

A. That statement is correct.

Q. And you try to get it as completely a closed path as is possible, do you not?

A. There are other factors which influence it. However, the path is closed.

Q. But it is desirable to get it close to the greatest extent you can, isn't that correct?

A. Consistent with the operation, yes.

Q. So there you have, in addition to the centrifugal action of the disk emitter, you have the problem of inclining it and you also have the problem of providing a specific type conveyor for causing the articles to navigate around the area of the disk, is that a correct statement?

A. You have combined so many factors on it there that I would like it repeated.

597 Q. I will take each one separately. First, you have a centrifugal disk?

A. There is a rotating disk, that is correct.

Q. And in order to get the liquid to the edge of the disk, you have to have rotation of the disk?

A. In this case, if the disk were stopped some of the liquid would flow to the outside edge because of it being tilted.

Q. But to give you the action you want to use a rotating disk?

A. We use the force of rotation to spread the film.

Q. That does it by centrifugal force, by virtue of this revolving at 900 rpm, does it not?

A. That is correct.

Q. In addition, in this particular embodiment, you have to incline the disk if you are going to cover the article from the top to the bottom, do you not?

A. Even with the disk inclined the article may be too large to be completely coated.

Q. Well, if the article is of a height that is greater than the edge thickness of the disk, you would have to incline the disk to get any sort of coverage?

A. No, that is not true, sir.

598 Q. Well, when do you have to incline the disk in order to get coverage?

A. When the spread and dispersion of the spray pattern from the edge of the disk to the object exceeds or is exceeded by the height of the object, then it becomes necessary to tilt the disk or go to some other method of adequately covering the entire object.

Q. Assuming that it does exceed the height, then it is inclined?

A. That is correct, sir.

Q. Now, in this particular embodiment, in addition to having the disk rotate, and having it inclined, you have to have a further condition of providing a specific type of conveyor which will bring the articles in a substantially closed circular path around the disk?

A. That is correct, sir, if you want to apply this method in production.

Q. Do you have anything like that disclosed in the Starkey, et al. patents?

A. Not the complete combination of elements you have recited, sir.

Q. You have other patents on those things, do you not?

A. That I cannot answer, sir.

599 Q. You are not acquainted with the patents your company has taken out on these devices?

A. I am, sir.

Q. Well, let's take this particular type of conveyor system and this inclined emitter. You have a patent disclosing that, do you not?

A. I am not absolutely certain that the patents disclose the inclined emitter.

Q. You have a patent that discloses the idea of the conveyor enveloping the disk, going substantially around it?

A. Such a patent does exist.

600 Q. And do you also have a patent that shows the use of bells?

A. We have, sir.

Q. Those patents aren't here in suit, as you understand?

A. To the best of my knowledge they are not.

Q. As a matter of fact, in these electrostatic devices for coating, when you turn off the juice, or the electric power, the particles that have been energized just prior to the turning off of the power, will seek a field even though the power is turned off, will they not?

A. You have raised the point of how fast the field disappears in such a device wherein the power is turned off.

Q. Yes.

A. And this would depend upon the construction of the voltage supply, the nature of the device connected to the voltage supplied, the size of the articles on the conveyor and many factors which would not permit me to answer your question categorically.

Q. Let me put it to you in another way: Let's assume we have some particles of liquid that have been charged that are in mid air, and at that instant you turn off the power.

A. Yes.

Q. By virtue of the fact those articles have been
601 charged, they, even though the field has been turned

off, will seek their own terminal, will they not? For deposition? They do not lose their charge right away?

A. They do not lose their charge, nor does the field disappear entirely instantaneously with the shutting off of the power supply.

Q. Well, as a matter of fact, in these processes, the electrostatic coating processes, it is possible for some of these particles to go astray from the normal field that is established, is it not?

A. If they go astray, they probably go astray by some extraneous force, if they go astray, by virtue of following the line of force that has gone astray.

Q. If they go astray, they still have their charge and will be deposited on something?

A. They will follow the electrostatic field to that object, yes.

Q. Isn't that called establishing their own field?

A. It would depend entirely, sir, upon whether or not they are still within the influence of this particular charged object.

Q. If they are outside the influence of it, they would establish their own field, then?

602 A. They would have to be separated from this by a conducting shield of some type in order for that condition to exist.

Q. Well, if you take the object away, they could discharge onto the conveyor, couldn't they?

A. Then the field exists between the atomizing device and the conveyor.

Q. The conveyor might be a ground?

A. The conveyor normally would be a ground, yes.

Q. Now, referring to this photograph that you produced yesterday, Exhibit 18-B, this photograph makes it perfectly evident that the streamers are not uniform, nor is the spacing uniform. Isn't that correct?

A. The spacing is not uniform, sir.

Q. So that the points of atomization are not equally spaced, are they?

A. They are not, sir.

Q. And in the actual use of this device, that spacing constantly is changing, is it not?

A. It could be, sir.

Q. Well, there is nothing mechanical to fix the spacing, is there?

A. Nothing mechanical, sir.

Q. In the Starkey device and, for example, as ex-
603 emplified by your models, Exhibit 9, the spacing of the points of atomization is more or less predetermined by the pins or the needles?

A. And other factors, sir.

Q. But you do have equally spaced or substantially equally spaced pointed needles in that device, do you not?

A. That is correct, sir.

Q. And on each of those points a particle or globule of inert liquid material will form during the electrostatic process, isn't that right?

A. There is a site of atomization so formed, sir.

Q. Well, doesn't the drawing of the patent, Exhibit 3, actually show in 5—

The Court: (Interposing.) Exhibit 8-A.

Q. (Mr. Meroni continuing.) Fig. 5 and as exemplified by Chart 8-A, doesn't it actually show the paint globules, 217, on the tips of the pin?

A. Is that during operation you are referring to, sir?

Q. Well, at any time they are shown in this drawing as being located on the ends of the pin, isn't that right?

A. That is correct, sir.

Q. And is that paint at 217 atomized during the operation of the device?

604 A. It is, sir.

Q. And Fig. 1, you have points or globules of paint that are located at spaced apertures, isn't that right?

A. That is correct, sir.

Q. And the spacing of those apertures predetermines the spacing of these globules, isn't that right?

A. That is correct, sir.

Q. Now, in this device of the plaintiff, Exhibit No. 14, will you point out to the Court by pointing to it, any spaced points along the periphery of the disk on which paint can collect, such as 217, 17, 117, of the Starkey Patent?

The Court: Exhibit A, he is referring to.

Q. (Mr. Meroni continuing.) Referring to Exhibit A.

A. There are no—

The Court: Interposing.) He is now handing the witness Exhibit 14, isn't it?

Mr. Meroni: That is correct, the witness has in his hands Exhibit 14 which is the plaintiff Binks' device here charged to infringe.

The Court: Do you recall the question now, sir?

605 The Witness: I believe so.

A. There are no such mechanically spaced projections or orifices which would determine the location of those sites.

Q. Now, I hand you a copy of the Starkey, et al apparatus, the Patent No. 2,794,417, Exhibit 4, and call your attention particularly to Claim 4. Do you have that claim before you?

(Witness tendered Exhibit 4.)

Q. Do you have it before you now?

A. I have it now, sir.

Q. Now, you will note that claim specifies "said points being sufficiently close together to permit the coating material to bridge the spaces therebetween." Do you notice that statement in that claim?

A. I do, sir.

Q. And by the way, do you understand that is the only claim of that patent that the plaintiff is here charged to infringe?

A. That is my understanding, sir.

Q. Now, bearing in mind that statement, I hand you Exhibit No. 14, which is the plaintiff's atomizer, and ask you to point out to the Court where in this piece of 606 apparatus is there any such points?

A. I believe the claim calls for distributing coating material to an extended atomize zone where it is atomized from a plurality of spaced points. Now, on this particular device, those points would be formed by the liquid itself as it comes out of this device.

Q. The part I read to you was the points being sufficiently close together to permit the coating material to bridge the spaces therebetween. Can you put your finger on that device on any such points?

A. The points referred to here are not a part of this device.

Q. And the device you are referring to is Exhibit 14?

A. That is right, sir.

Mr. Meroni: I would like to have the Court Reporter mark for purposes of identification at this time as Plaintiff's Exhibit JJJJ a copy of the Ransburg Patent No. 2,658,009.

(The plaintiff, for purposes of identification, handed the Reporter a certain document for marking, and which was by said Reporter marked "Plaintiff's Exhibit JJJJ.")

Q. (By Mr. Meroni.) Mr. Miller, I hand you a copy of this Ransburg Patent 2,658,009, identified as Plaintiff's Exhibit JJJJ, and ask you if you are familiar with the 607 subject matter of that patent.

A. Generally speaking I am familiar with the subject matter of this patent.

Q. And you note that it issued on November 3, 1953

which is ahead of the issue date of the Starkey Patent in suit? Is that clear from the patent it issued ahead?

A. I note the issue date is November 3, 1953.

Q. And that the application was filed May 13, 1948.

A. That is correct, sir.

Q. Now, in the first paragraph of that patent, you notice there the statement, "This general process of applying coatings is disclosed in the U. S. Applications of William A. Starkey, et al., Serial No. 556,390, filed September 29, 1944."

I hand you a copy of the Starkey Patent process, Exhibit 3, and ask you if the application of that patent is the one referred to in the Ransburg Patent Exhibit JJJJ?

A. That appears to be the case, sir.

Q. To put it in different language, this Ransburg Patent is also asserted to embody the process of the Starkey, et al. patent in suit, isn't that correct?

A. I would have to have that question read over, sir.

608 Mr. Meroni: Will you read the question to the witness, please?

(The preceding question was read by the Reporter.)

A. I can't say specifically; the patent certainly refers to this in the wording of the first paragraph.

Q. Does the process in the Ransburg Patent 2,658,009 embody the step of maintaining between the head and the article an electrostatic field which electrostatic field effects said atomization, dispersion and deposition?

A. Such may be disclosed here. I do not know if the patent claims that, however.

609 Q. Well, let's look at Figure 1. Doesn't that figure disclose that step to you in the light of your knowledge of that patent and this art?

A. This shows a figure in which coating material is presented to an electrostatic field and in which that ma-

terial is atomized, dispersed and precipitated on an article oppositely disposed.

Q. And doesn't this patent specifically set forth the voltage that is required to do that? Do you recall, or would you have to read the patent?

A. I would have to read the patent to answer your question specifically, sir.

The Court: It will speak for itself if you offer it in evidence.

Mr. Meroni: I will, Your Honor. I just thought I could save time.

The Witness: There is a statement in Column 4, Line 57 which says: "With 60 kilovolts applied to the tube." So I presume that some voltage is referred to in that patent, yes.

Q. (By Mr. Meroni.) Now, in this particular disclosure of this electrostatic process you have a single 610 atomizing point at 216, 16—let's confine it first to 16. At 16?

A. That is the orifice from which the coating material issues, sir.

Q. So that you can with a single orifice have an electrostatic atomization, dispersion and deposition of particles if you have got the proper electrostatic field?

A. That is correct, sir.

Q. Would it make any difference if the tube containing the orifice 16 was made of glass?

A. It would, sir.

Q. It could be made of glass and still work, could it not?

A. Depending upon the cha acter of the liquid it might work, yes.

Mr. Meroni: Your Honor, we are not going to offer these at this time. I thought it would keep the record straight if I offered all these things in my case.

Q. I now hand you a copy of another patent of the Ransburg Company which has previously been identified during the depositions as Exhibit O and, which has
611 been taken out in the name of Mr. Smart and Mr. Juvinall, Patent No. 2728606,—there is a copy of that, Your Honor, I believe in that binder you have there, 2728606—and ask you if that patent doesn't disclose one of the Ransburg rotary disc type of electrostatic emitters?

A. It does, sir.

Q. It is my understanding that that is one of the first patents that was obtained by the Ransburg Company showing the rotary disc type emitter. Does my understanding agree with your own?

A. This would be in the group of patents which originally is perhaps described as one of the first, yes.

Q. Now, you didn't mean to intend by your direct examination to convey the impression that the No. 2 process of the Ransburg Company was the cure-all for all spraying problems, did you?

A. No, sir.

Q. As a matter of fact, there are many types of articles which do not lend themselves to satisfactory coating by the No. 2 process, isn't that correct?

A. There are some such articles, sir.

Q. Well, for example, let's assume you have a pail
612 and you want to cover the inside of a pail. You couldn't do that with the No. 2 process unless you put the emitter down inside the pail, could you?

A. That is correct.

Q. And likewise, if you had an article with a very sharp edge, with a right angle shoulder or flange leading into that edge you couldn't satisfactorily cover the flange or shoulder at right angles to the surface being coated, could you?

A. With adequate modification of the process that can be done, sir.

Q. Well, as a matter of fact, don't they frequently have to use what they call a touch-up procedure with the No. 2 System?

A. That is correct, sir.

Q. And they touch-up frequently with air guns, don't they?

A. They do, sir.

Q. Yesterday I examined you concerning this chart, Exhibit 7, which purports to show your No. 1 type of installation. You recall my showing this to you yesterday?

A. I do, sir.

Q. And at that time I asked you if paint collecting on the green bars would be atomized and, as I recall it,
613 you said there would be a tendency for the paint if it did accumulate on the bars to slide downwardly and then it might atomize. Do you remember that?

A. I said that then it would come off in globs or particles, yes.

Q. How about paint accumulating on these sharp fine wires that are carried by the bars?

A. They likewise might run down to the bottom of the wire and be globbed off the end of the wire.

Q. They likewise might do that, but being a sharp edge isn't it more likely that they would be atomized off of that edge?

A. That depends on many things, sir.

Q. But you wouldn't say that such particles would not be atomized off the wires, would you?

A. If the conditions were correct that might happen, sir.

Q. And if that happened the particles would be dispersed and would be applied to the article being coat would it not?

A. Or they might go off the wire to the wall of the booth there also.

Q. But they could lodge on the article being coated, couldn't they?

614 A. That is correct.

Q. Now, yesterday when I was interrogating you you asked me what I meant by atomization. Do you remember that?

A. I certainly do, sir.

Q. As far as this electrostatic art is concerned, is there more than one kind of atomization?

A. I think generally the term "atomization" would have to be read in the connotation of the particular application that you were speaking of, sir. And in the case of painting, coating objects as we are doing here, coating objects with paint, that implies to me a suitable breakup so that you get the type of finish that you want on the surface.

Q. Well, you don't understand that the Starkey Patents are limited to paint, do you?

A. The application of coating, sir.

Q. And that coating could be ink or wax, according to the Starkey disclosure, couldn't it?

A. That is correct, sir.

Q. You might even have a coating of alcohol, might you not?

A. So far as the Starkey Patent is concerned, I doubt if alcohol would constitute a coating.

Q. Well, if you sprayed a coating of alcohol it
615 would remain there unless it evaporated, wouldn't it?

A. It undoubtedly would evaporate.

Q. Well, shellacs have alcohol in them, do they not?

A. Shellac and alcohol are two different things.

Q. Well, do you have any coating where there is alcohol as a carrier?

A. Alcohol is a portion of the shellac. Normally the shellac resin is brought into solution in alcohol.

Q. But you have endeavored throughout your direct examination to tie the Starkey Patent up to paint.

A. To coating, sir.

Q. Yes. There isn't one word in the Starkey Patent that says it is particularly desirable for use in paint coatings as distinguished from any other type of coatings, is there?

A. Not directly, sir.

Q. As a matter of fact, aren't you aware of the further fact that in this electrostatic field of atomization of liquid particles it was old in the Littlefield Patent to atomize liquid particles electrostatically, and it was also old in the Darrah Patent to do it?

A. In the Littlefield Patent the atomization, as I read this patent, occurs from the coating material—pardon
616 me—the liquid material that is being used in that particular case being emitted from an orifice, hitting certain blades in the same sense as water coming out of a spray nozzle on the end of a hose is broken up.

Q. There is an electrostatic field there, isn't there?

A. That broken up material is then supposed to be in the electrostatic field.

Q. There is an electrostatic field in the area of the orifice, isn't there?

A. That is correct, sir.

Q. Now, are you aware of the fact that we have an admission in this suit in connection with interrogatory No. 152 that the Darrah Patent does disclose atomization of liquid?

A. I believe that is correct.

Mr. Meroni: Interrogatory 152, Your Honor.

Q. Let me refresh your recollection on that. In connection with Defendant's answer to Interrogatory 117

wherein the defendant has known that it was old prior to October, 1943 to use an electrostatic field for effecting atomization and spraying of liquids: (a) What is the name of the officer or officers who had such knowledge;
617 (b) What is the identity of the source or party or persons from whom such knowledge was derived; and (c) Was any of such knowledge acquired in written form or reduced to writing; and (d) If so, what is the identity of each and all such papers in writing bearing in any way on such knowledge?"

Answer: (a) E. M. Ransburg. (b) (c) and (d): Such knowledge was acquired from the United States Patent to Darrah, No. 1958406 cited by the Patent Office examiner in the file wrapper of Starkey Patent No. 2685536 in suit."

Does that refresh your recollection in that regard?

A. That is correct, sir.

Q. And you admit that Darrah does disclose the idea of an electrostatic field of atomizing and dispersion of liquid particles?

A. I would say he does, yes.

Q. Have you in the course of your work for the Ransburg Company ever undertaken to purchase any patents for the company or acquire any patent rights for the company?

A. Personally you mean, sir?

Q. Yes.

A. I have not.

618 Q. Have you participated in such proceedings?

A. To a minor degree, sir.

Q. By the way, referring again to this Ransburg Patent 2658009, Exhibit JJJJ, is it true that in addition to the normal field for electrostatically atomizing, dispersing and depositing the liquid there is an auxiliary field shown?

A. There is introduced into the apparatus and device an electrode which is maintained at a different potential from the central orifice from which the coating material flows,

and in that sense the two fields combine and integrate into one field. As in any electrostatic case the shape of the electrodes between which the field is established establishes the shape of the field, the potential of those electrodes likewise will influence the shape of the field.

619 Q. According to this patent, reading from Column 2 of Page 1, Line 8, "It is an object of the present invention to provide an electrostatic method and coating apparatus of the character * * *." Let me correct that. "It is an object of the present invention to provide in the electrostatic method and coating apparatus of the character above set forth a secondary stabilizing field adjacent the electrostatic spray atomizing projecting and depositing field."

Isn't it perfectly clear that it is treated as a secondary field, apart from the main field in that patent?

A. It says "secondary field" and doesn't say anything about it being apart from the main field.

Q. It is characterized as a secondary field?

A. Yes, as a secondary field.

Q. The fact that you use such a secondary field, does that detract from the efficiency of the main field?

A. The secondary field becomes part of the main field, sir.

Q. Does the fact that you incorporated that so-called secondary field in this process of Ransburg detract from the operation of the device over what would be accomplished if it wasn't there?

A. It certainly doesn't detract from the operation.

620 Otherwise it wouldn't be much of an invention, I wouldn't think, sir.

Q. So whether you have one or two fields, as far as the practicing of the process of electrostatic depositing, or electrostatic atomizing—let me start over again.

So that as far as the use of a field for atomizing, dis-

persing and depositing fluid is concerned it doesn't make any difference whether you have one field or several fields, does it?

A. It does with regard to the origin source and the operation of the over-all method which requires establishing a single field between the site or point of atomization and origin of the coating material, and the extension of that single field from that point to the object being coated.

Q. Well, let me put it another way: The fact that you have got several fields here in Ransburg doesn't in any way detract from the operation of electrostatically atomizing, dispersing and depositing the liquid material?

A. In so far as you have a secondary field, that situation is true, sir.

Mr. Hume: May we have the record show what you mean by "here in Ransburg"?

621 Mr. Meroni: It is the same Ransburg patent, JJJJ, that I was examining this witness about right along.

Q. You so understood it, did you not?

A. That is correct.

* * * * * *

Redirect Examination by Mr. Hume.

* * * * * *

623 Q. Now, in reading over the testimony that was given yesterday did you find an answer that you wanted corrected?

A. I did, sir.

Q. Will you tell us what it is, please?

A. It has to do with the size of orifices in a spray gun.

Q. Where does that question that was asked appear and tell us what the question was, please?

624 A. The question appears on the bottom of Page 532. The question was "How low do they run usually?" Perhaps I had better read several previous ques-

tions in order to put the answer in context. The question above that was:

"Q. And also conventional practice to use flow regulators of various types, was it not?

"A. Yes, sir.

"Q. Are you aware of what size orifices can be used in air guns, air spray guns?

"A. Generally speaking, sir.

"Q. How low do they run usually?

"A. They can go down as low as a thousandth of an inch, I would say, sir."

I would certainly like that question to read they can go down to thousandths of an inch, indicating they can be of the order of ten or fifteen or twenty thousands.

• • • • •

630 *Recross Examination by Mr. Meroni.*

Q. I show you Ransburg Patent 2,658,009, Exhibit
631 JJJJ, and ask you if the orifice, 16, was made of the same size as the orifice that is used at A in Zeleny, how long it would take to paint, using the Ransburg device.

A. If the orifice were made of the same size as that indicated by Zeleny, and I presume you would pick one of the various sizes he illustrates and talks about, the time would be shorter by the amount dictated by the applied feeding device at the controlled rate, as indicated in this device.

Q. Well, how much shorter? Would it take a half day, quarter of a day, or all day?

A. I have no way of telling since I do not know what the pressure would be in this particular case, or what the delivery would be.

Q. Do you know of anything in that patent that tells you what size the orifice has to be?

A. I would have to check that, sir.

Q. Do you recall if there is anything from your knowledge as to that?

A. As of the moment, I do not recall such disclosure.

Q. Is there any statement in any of the Starkey Patents in suit, two Starkey Patents in suit, Exhibits 3 and 4, as to what size the orifices have to be in terms of unit of
632 measurement?

A. Perhaps I had better clarify my last statement.

Q. Well, before you do that, in order to keep the record straight, I will have this question read to you and, then, you can clarify your previous one, if that is agreeable to you.

A. Fine, sir.

The Witness: Will you read the last question to me?

(The preceding question was read to the Witness by the Reporter.)

A. There is no specific disclosure as to the size of the orifice in the Exhibit No. 3 patent and I would suspect that the same is true in Exhibit 4.

Q. Now, referring back to the previous question, having to do with Exhibit JJJJ, is there a reference to size in that patent? You were going to clarify your answer.

A. As I find it in column three, that the tube, 12, is referred to as being 3/16 inch outside diameter, and it recites that the outer nozzle, or tip 14, is formed by beveling the outer surface of the tube from a point adjacent the end, gradually toward the end and toward the interior sur-
633 face of the bore 15 (the bore being of a diameter on the order of 1/16 inch).

Q. Is that dimension critical?

A. That dimension is critical from the standpoint it must be correlated with the rate of feed, the rate of controlled feed to the orifice.

Q. Well, is there any attempt made in the Starkey

Patent as far as you know to correlate the size of the orifice to the rate of feed?

A. Only insofar as the patent discloses a system, all of which factors would have to be correlated to make the system operative, I presume.

634 Q. But there is nothing stated dimension-wise?

A. Nothing stated dimension-wise.

* * * * *

DONALD COLIN HOWARTH, a witness called by the defendant, being first duly sworn, testified as follows:

* * * * *

641 *Cross-Examination by Mr. Meroni.*

Q. Are you the same Mr. Howarth that testified in a deposition in these proceedings on February 4, 1958?

A. Yes, I am.

Q. I hand you what purports to be a bulletin of the Ransburg Company on the No. 2 System identified as Plaintiff's Exhibit JJJJ, and ask you if that is a sales bulletin of your company with which you are familiar?

A. Yes, it is.

642 Q. Does it refer to equipment of the type that you referred to in that two and a half million dollar figure?

A. It refers to some of it.

Q. Well, does that figure include the leasing of equipment such as is embraced in that bulletin?

A. Yes, it does.

Q. Now, in the two and a half million dollar figure you referred to in every instance has the equipment been leased?

A. Yes, it has.

Q. And as far as the No. 2 process equipment is concerned, would you say that this description appearing on

the next to the last page of that bulletin, quadruple I, is properly descriptive: "Ransburg supplies the complete automatic coating unit, consisting of the source of electrostatic potential, electrical controls, insulators, atomizing heads, and coating material handling system"?

A. Yes, it would.

Q. And as to those systems, does the user or licensee usually furnish the conveyor, workholders, and the solvent ventilation means?

A. Yes.

Q. And as to those leased and licensed systems, does your Engineering Department supply service, particu-
643 larly with regard to drawings and the set-up of equipment?

A. Yes.

Q. Is your field of operation limited to only the No. 2 System or have you also participated in the licensing of the No. 1 System?

A. I have also participated in the licensing of the No. 1 System.

Q. Then this is still an item of business with your company, isn't it?

A. Yes, it is.

Q. Do you still do some volume in it?

A. Yes.

Q. Roughly, can you state what percentage the volume is on the No. 1 System?

Mr. Hume: Your Honor, I object as being irrelevant. It doesn't tend to prove or disprove any issue fact in this case.

Mr. Meroni: I believe it tends to show the relationship of this two and a half million dollar figure to the over-all business, your Honor.

The Court: He has made a representation here.
644 The witness' answer is that two and a half million dol-

lars has been the income from these three hundred licensees, and I believe they would be entitled to break it down. I will overrule the objection.

Mr. Hume: Those are all confined to the No. 2, your Honor. This isn't a breakdown of that figure. This is other business.

The Court: I see. Is that your understanding of it, or would you think it was in the two and a half million dollars?

Mr. Meroni: No, your Honor. I admit that what counsel has said to the Court is accurate, that the two and a half million dollar figure was limited to the No. 2 System. That was my understanding, and I didn't intend—

The Court: It would be improper cross-examination at this time, wouldn't it? If you will state your purpose in it, show the relevancy of it—

Mr. Meroni: I think it is proper to show the relationship of that two and a half million to the over-all business of the company and find out what proportion it is with regard to the No. 1 System. It is only part of the story.

645 I think they are examining this man as a salesman of the company, and we are entitled to show the picture.

The Court: What is the relevancy now? Would you put your finger on it for me?

Mr. Meroni: The relevancy?

The Court: Yes.

Mr. Meroni: Well, they are trying to make it appear that the No. 2 System is a cure-all for all painting problems, and the No. 1 System is still a major item. And in submitting this two and a half million dollar figure they are trying to overwhelm the Court with the fact that all these companies are taking the No. 2 System which is the cure-all without showing to the Court that they are still selling the No. 1 System to these same licensees.

The Court: All right, we will overrule the objection.

You started to say something, Mr. Hume?

Mr. Hume: (Negative nod.)

Mr. Meroni: Will you read the question?

(The Reporter read the following question: "Roughly, can you state what percentage the volume is on the No. 1 System?")

646 A. Dollarwise about 15 percent.

Q. And that would be over and above the two and a half million dollars?

A. No, sir.

Q. Would that be included in the two and a half million dollars?

A. No, sir.

647 Q. Well, is the revenue for this 15% in addition to the $2.5 million?

A. Yes, the 15% is a percent of the total revenue.

Q. And would it be correct to say that many of these licensees that you mentioned here have both the No. 1 and No. 2 processes?

A. Certainly some of them do.

Q. You say you have been employed by the company since January of 1948?

A. Yes, by Ransburg Electro-Coating Corporation.

Q. Are you in charge of the installation and service and purchase and manufacture of equipment and the sales engineering, labor and drafting?

A. Yes, I am.

* * * * * *

804 Mr. Meroni: Your Honor, this morning I offered as OOOO Pages 1 to part of Page 28 of the Darrah deposition. I was under the impression opposing counsel might offer the balance of it, but since then I have concluded I would like to offer certain excerpts which are 805 rather short and I would like to read them into the record. On Page 42, the lower part of the page:

"Q. Now, when you used the red ink was the liquid medium employed with the red ink in all instances water?

"A. As far as I recall, yes.

"Q. Now, what did you find out when you ran the tests with oil?

"A. Similar results.

"Q. What kind of oil did you employ?

"A. I can't tell you now what I used. I think probably some oil from around the house.

"Q. Lubricating oil?

"A. Yes.

"Q. Was this transformer that you employed capable of producing different voltages?

"A. Yes, that's right.

"Q. What kind of a transformer was it, do you know?

"A. I think it was made by the Thor Company.

"Q. What voltages could be realized with its use?

806 "A. Well, as far as I can recall, somewhere in between 10,000 and 50,000, something of that range.

"Q. Did you ever use the red ink in conjunction with oil?

"A. No, as far as I recall."

Now, turning over to the bottom of Page 44:

"Q. Now, referring once more to the use of that red ink, a piece of paper was put in front of the nozzle to determine the shape of the pattern, I think you said, when Mr. Meroni asked you something about whether that was in the area of the field. Now, would you take that Exhibit UUU that you have identified here and would you draw on there with this red pencil just where the paper was put?"

I might say that UUU has been offered in evidence.

"A. I can only guess it at this time, but I would say here (indicating).

"Q. So the red mark you have put on Figure 1 represents the disposition of it?

"A. Approximately.

"Q. And you would say that was how far away from the nozzle in inches?

807 "A. You are getting very specific for something that happened 30 years ago. As a guess, I would say between two and four inches."

Turning to Page 46, a further excerpt:

"Q. And at what point would it coat the ring and at what point would it not coat the ring?

"A. Well, I had to adjust that back and forth. I can't tell you the exact point.

"Q. Referring now to your patent once more, Plaintiff's Exhibit UUU, and particularly, say, to Figure 1 thereof, did you ever determine whether or not the liquid would flow out of the nozzle 4 when there was no voltage on at the time, the potential was disconnected?

"A. With a very fine point it would flow very slowly, sometimes a little drop forming on the end.

"Q. It would ooze out of that little capillary opening of the tip?

"A. Yes.

"Q. And was that adjusted by the liquid head you had provided?

"A. Well, that would control it.

"Q. That would control it?

"A. Yes."

808 Now turning over to Page No. 48, and this is on redirect examination by Mr. Meroni, as follows:

"Q. On this Exhibit UUU you drew a red line in Figure 3?

"A. Figure 1.

"Q. In Figure 1? Thank you. You drew a red line

there which intersects the spray. That is the line you drew, isn't it?

"A. That's correct.

"Q. Would you mark the line 'paper'?

"A. Yes.

"Q. And would you also mark the red liquid particles that were being sprayed on the paper, if you can, from this drawing? Mark the red liquid particles.

"A. Well, I can only approximate it and just show dots, if you want.

"Q. Well, will you just write there 'red liquid particles'?

"A. All right."

That concludes the offering on the Darrah deposition, Exhibit OOOO.

• • • • •

832 Mr. Meroni: Now, your Honor, I would like to offer in evidence as Plaintiff's Exhibit IIIII a certified copy of a final judgment comprising 14 pages and an appendix listing patents comprising nine pages in the case of United States of America, plaintiff *versus* Minnesota Mining & Manufacturing Company, Behr-Manning Corporation, The Carborundum Company, Armour & Company, Durex Abrasives Corporation and Durex Corporation, civil action No. 8119, and this judgment is dated July 5, 1959, the opinions involving this judgment appear at 92 Fed. Sup. 947 and 96 Fed. Sup. 356.

(Plaintiff's Exhibit IIIII offered in evidence by Mr. Meroni.)

Mr. Gilliom: If the Court please, the defendant objects to Plaintiff's Exhibit IIIII on the ground that the exhibit is or purports to be a certified copy of a final judgment in a case entitled United States of America, plaintif, *versus* Minnesota Mining & Manufacturing Company, Behr-Manning Corporation, the Carborundum Company, Armour &

Company, Durex Abrasives Corporation and the Durex Corporation, defendants. The objection is on the ground that the defendant in this case was not a party to the proceedings out of which the judgment which constitutes
833 this exhibit was issued, nor was the defendant's predecessor a party to that proceeding and the final judgment in this cause could not be binding upon the defendant or its predecessor in any way and does not tend to prove or disprove any issue in this case.

Mr. Meroni: May I respond to that, your Honor?

The Court: Yes, sir.

Mr. Meroni: If the court please, it is our position that this judgment is directly pertinent to this subject matter and that moreover, while the defendant, Ransburg, was not specifically named, it was in privity with Behr-Manning and moreover, some of the patent rights that Behr-Manning obtained emanated from Ransburg under the Behr-Manning agreement here in controversy.

Now, on page three the Court sets forth nicely the definition of what is involved patent-wise, has some very nice definitions in here; and after defining letters patent and so forth owned or controlled by any of the defendants and all letters patent which may issue on or result from said applications, and so forth, and as relating to any applications for letters patent issued to or filed by any of the defendants relating—Now, these list three categories and they say
834 relating to coated abrasive products and any method, material, equipment or process involved in the production or manufacture of coated abrasive products.

Now, as we shall show, the Behr-Manning Company obtained part of its exclusive rights in this field from Ransburg under some of the Ransburg patents and there is one specific patent, and I will give you the number of that in a minute, that was referred to in the actual correspondence with Behr-Manning that is already in evidence and that is

Patent No. 2,270,341, of January 20, 1942 which relates to a method of coating granular materials and under which Behr-Manning acquired exclusive rights from Ransburg and which rights were automatically included in the terms of this judgment in its broad sweeping language.

Now, proceeding with that judgment, that was a definition of what subject was involved. The Court said: "The provisions of this judgment applicable to any defendant shall apply to such defendant, its successors, subsidiaries, assigns, officers, directors, agents, employees and all other persons acting or claiming to act under, through or for such defendant." And further on the Court lists numerous agreements. It is true it didn't list this particular Behr-Manning agreement that is here in issue but if the
835 Court had been apprised of it no doubt it would have listed it; but its language is so broad it includes it. It says, "Each of the patent licenses and cross-license agreements relating in whole or in part to Coated Abrasive Products or any method, material, equipment or process involved in the production or manufacture of Coated Abrasive Products, to which any of the defendants is presently a party, as licensor"—notice, it says "to which any of the defendants is presently a party"—"including, but without limitation, the following agreements, is hereby terminated and cancelled in its entirety."

Then the Court went on to order these parties to dissolve this illegal relationship and to grant reasonable licenses to the whole industry under all the patent rights that were in this pool of patent rights. Now, under the terms of these agreements, any rights that Behr-Manning had, relating to electrostatic coating of solid particles, whether it acquired it from Ransburg or someone else, was automatically included in this combine and, as I have indicated before, under the terms of the Behr-Manning agreement, Behr-Manning did get all of Ransburg's exclusive rights in at

least this one patent method of coating granular materials which was one of the inducements for Behr-Manning
836 giving Ransburg the exclusive rights in the liquid field and in fact, the correspondence spells that out. It says, "Here we have this patent; you ought to be interested in that." That was one of the sugar-coated pills that was held out to Behr-Manning.

Now, by the same token, in the Behr-Manning agreement we find all these patents listed of Behr-Manning as being patents under which Ransburg got exclusive rights and those are specifically spelled out in this judgment. They are listed in the appendix and I will enumerate them: Schacht No. RE. 20,660; Buckner Patent, 2,027,087; Schacht Patent 2,027,308; Schacht Patent 2,027,309; Schacht Patent 2,082,-182; Schacht Patent 2,245,301; Amstuz Patent No. 2,279,-361; Smyser Patent No. 2,287,837; Carlton Patent No. 2,318,570; Carlton Patent No. 2,318,571 and Oglesby Patent No. 2,328,577.

Now, I would like to offer those patents as a group. There is one more Carlton Patent No. 2,376,342, although not specifically spelled out, issued from an application serial No. 422,065 issuing from original 401,484, which is listed in the judgment.

Now, I would like to offer this group of patents which I have just identified as Plaintiff's Exhibit JJJJJ-1,
837 2, 3—through 12, I think it is. Now, there are patents, your Honor, that are identified in this judgment and they are also identified either the patents or the applications are identified in the Behr-Manning agreement that you have already received in evidence and I offer this group of patents at this time since I have just identified them.

(Plaintiff's Exhibit JJJJJ offered in evidence by Mr. Meroni.)

Mr. Gilliom: If the Court please, there is an objection pending to the offer of Plaintiff's Exhibit IIIII. Does the

Court wish to dispose of that objection before the offer of Plaintiff's Exhibit JJJJJ? I would like to reply briefly to Mr. Meroni's argument on that point.

The Court: I will hear you on I, then.

Mr. Gilliom: Plaintiff argued in substance the defendant in this case was in privity with the Behr-Manning Corporation at the time Behr-Manning Corporation was a party to the proceeding from which plaintiff's Exhibit HHII resulted. I would point—And based upon that supposition a contention as we understand it, that therefore this judgment in that proceeding has some effect upon this
838 defendant although I am not sure what effect plaintiff's Counsel contends it has.

I woud like to deal with that premise. The only agreement between Behr-Manning Corporation or its defendant, or its predecessor which is in evidence in this case, and the only one which exists as a matter of fact, is plaintiff's Exhibit UU and if the Court will recall, that agreement was a completely executed agreement at the time that it was signed and delivered by the parties inasmuch as it at that time conferred one party to the other licenses under certain patents and there remained nothing under that agreement to be executed after the date of its delivery. Therefore the effect of it was after that agreement was executed between Behr-Manning Corporation and defendant's predecessor, Behr-Manning Corporation had some rights under certain patents which were owned by the defendant's predecessor. After it had acquired those rights apparently contemporaneously with that, it entered into some kind of an arrangement with other defendants in the proceedings named in Plaintiff's Exhibit IIIII, which arrangement was condemned apparently in this final judgment; in other words, after it had some property which it had acquired from the defendant's predecessor, it appar-

ently did something wrong with that property, the
839 same way as any person might use property wrongfully that it bought from someone else previously. Now, the judgment in the case of the United States of America *versus* those various defendants could have no effect in this case at all unless it is binding on somebody and specifically since it is offered by the plaintiff in this case, unless it is binding upon this defendant.

And under those circumstances, we submit that it simply can have no binding effect upon the defendant in this case and therefore would not tend to prove or disprove any issue in the cause.

840 Mr. Meroni: It is our position it is binding, Your Honor and that under the terms of this agreement, the Ransburg people were obligated, in so far as their patent was concerned under which Behr-Manning had exclusive rights in the solid particle field is involved. Under Patent 2270341 they should have granted licenses to the trade and have not done so. We say it is a matter for the Court to determine the legal effect of this judgment in the light of the facts as stated.

We don't have to, of course, offer the decisions because the Court can take notice of the decisions but this judgment is not published.

The Court: Was Behr-Manning a party defendant to that?

Mr. Meroni: Yes, your Honor.

The Court: I misunderstood you.

Mr. Meroni: Furthermore, Minnesota Mining is a defendant and in the Behr-Manning correspondence we offered in evidence Minnesota Mining is referred to several times in that correspondence, too.

The Court: What do you say about the argument just presented here that there was some additional infraction

of the law incurred here by Minnesota Mining and
841 these defendants that in no way involved the defendant in this case.

Mr. Meroni: I think it did involve them, Your Honor, under the terms of this judgment. They empowered Behr-Manning to grant rights under this Ransburg patent. This patent is automatically embraced within the scope of this judgment and under the language of this judgment it clearly falls within the definition set forth there even though it is not spelled out. It involves all patent rights that Behr-Manning has relating to the solid particle field, and in the opinions of the Court specifically discusses the electrostatic field and I say that this patent is directly involved in this judgment and that, therefore, Ransburg was in privity with Behr-Manning and this judgment was binding on Ransburg and they should have granted, collaborated with Behr-Manning to fulfill the terms of this judgment, by granting the public licenses under this Ransburg patent on a reasonable royalty basis and they did not do so and, therefore, they likewise are tarred with the same brush.

The Court: I would sustain the objection to the offer of Exhibit IIIII.

* * * * *

851 Mr. Gilliom: The defendant objects to the answer of the witness Roche commencing at the top of Page 345 on the grounds that all of that answer is a volunteered statement by the witness which is not responsive to the question preceding it and states a conclusion of the witness which he was not asked to state in the course of that question, and upon the same grounds the defendant moves to strike all of that answer.

I might elaborate briefly if the Court please, by pointing out—does the Court have the question and answer before him?

The Court: I just authorized the Reporter to take the original deposition out because he is trying to keep up.

Mr. Gilliom: The question appears at the bottom of Page 344, Your Honor, and the answer at the beginning of the top of Page 345. This was a discovery deposition taken by the defendant and the examination is of Mr. Roche who is the president of the plaintiff corporation, and in an effort to know what facts this witness knew to support a conclusion which was alleged in the pleading, the Court will note that the question asks specifically that he stick to the facts and the question is:

852 "What facts, if you have any, are there that you can relate within your knowledge to support your statement that Ransburg insists that the licensees take their equipment? What have you got to support that, that is, facts?"

The answer, evades the question entirely and says:

"Well, actually, sometimes it isn't a question of insisting. It is just a question of what is practical and expedient."

Then the witness goes on to state what his conclusions are upon matters which are necessarily hearsay, so that it appears that the witness did not answer the question to state facts, but simply stated a conclusion and to that extent it is a voluntary statement not responsive to the question which is not admissible.

The Court: What do you say about that, sir?

Mr. Meroni: Your Honor, this was a deposition. Whether it was discovery or factual, we don't kno r.

They endeavor to get a lot of facts, and it seems to me that if they thought there was something wrong formiy about the answer they should have objected at

853 the time so that we would have had an opportunity to clear it up on cross examination. That is the purpose

of depositions, and any objections as to form should be voiced at the time of the deposition.

They made no motion to strike the answer at the time. We assumed they had no objection as to form and that the only objection, if any, they might advance would be relevancy, and moreover, we think the answer is responsive to the type of question that was asked.

The question asked him, "That is just a conclusion you have reached. * * * I want you to stick to the facts. * * *"

And then he stated what he thought his basis was, and I think that the answer was proper, and I think that if there was any grounds for objection they should have voiced them at the time rather than wait until the trial.

The Court: I take it, then, you concede it is objectionable?

Mr. Meroni: I wouldn't concede it is wholly objectionable, Your Honor.

The Court: Let's hear your argument that it is objectionable, other than the technical—

Mr. Meroni: Well, Your Honor, I don't have the decisions at my fingertips, because I didn't anticipate
854 that counsel was going to raise this point, but it is well established that in a corporate entity there is great liberality on this hearsay rule, greater than there is with individuals contracting and doing business. A man that is the head of a corporation, and Mr. Roche was the president, he acquires his information from people in the organization, and everything comes to him in that capacity of president through people in his organization and there are ample decisions that say that that is part of his duties, part of his work, and that is not hearsay, or you never could get any testimony about the activities of a corporation.

Now this man is testifying to things that come to his attention as leader of his corporation. And I say that

there is nothing in here that necessarily says it is hearsay. He might have got it by independent investigations and research that he made. It doesn't say that somebody told him this. He says, "It would appear to me * * *" and he makes statements of that type. It isn't clearly couched in language that would make it objectionable as hearsay anyhow, so I think the whole premise for the objection is bad.

I think it is a proper answer; the head of a corporation would be expected to know the things that he has set forth here as part of his duties in managing that corporation.

855 The Court: I would sustain the objection and the motion to strike the answer out on the grounds of objection here or your counter objection, let's put it that way; that the objection is ill-timed here on the part of the defendant, that you have been taken advantage of; there is no indication that there would be any objection to this answer in question. The Court would afford the plaintiff the opportunity and the time without closing the gates here in this trial for you to bring Mr. Roche here for further cross-examination if you have been deprived of that right.

Mr. Meroni: It is the question of having him come to that expense, he is not in that jurisdiction.

The Court: He is an officer of the litigant?

Mr. Meroni: I think the law is well established, the party can elect to take the deposition of an officer that is outside, or he can make a demand that he appear in Court. They can't have both rights.

The Court: I don't know that that would hold true in the case where the litigant is involved himself, itself in this case.

856 Mr. Meroni: I have had occasion to brief that recently, Your Honor, and the—

The Court: Bad law.

Mr. Meroni: In California.

The Court: I can understand where a party is not a litigant where you would be taken advantage of, but where —what is the title of this man here in the company?

Mr. Meroni: He is president.

The Court: I would afford the president the opportunity to come here and hold the gates open for such time within reason, if he is out of the jurisdiction and out of the country, or even delaying the trial to give you the opportunity of cross-examining him, if you have been taken advantage of by this untimely objection.

But I will sustain the objection at the time being and I will rely on you to tell me before we close the trial here whether you do need time to bring Mr. Roche here.

• • • • •

857 Mr. Meroni: We will now proceed with that same volume, but with the second deposition, namely that of Mr. Baur—before doing that, Your Honor, may I make an offer of proof on that particular question and answer that has been stricken so that the record will show that?

The Court: Well, your deposition will show it. You don't need—

Mr. Meroni: (Interposing.) We are not offering the whole deposition, Your Honor, and rather than to have to take up the whole volume, may we have that particular question and answer typed in the record? Otherwise, we would have to submit the whole volume to the Court of Appeals.

The Court: Whichever way you want to do it, but it is already there. It is in writing. It is just in a written exhibit.

(The referred to question and answer are as follows:)

"Q. That is just a conclusion you have reached, Mr. Roche. I want you to stick to the facts here.

"What facts, if you have any, are there that you can relate within your knowledge to support your statement that Ransburg insists that the licensees take their equipment? What have you got to support that, that is, facts?

858 "A. Well, actually sometimes it isn't a question of insisting. It is just a question of what is practical and expedient. If it appeared to the customer that the only practical and expedient thing for him to do, that he was, you might say, practically forced into buying or into, you might say, leasing the Ransburg equipment or at least using, perhaps I should say, the Ransburg equipment, if that was really the only intelligent choice left open to him, it would appear to me that he was more or less forced into using the Ransburg equipment actually, even though the Ransburg management may not have deliberately insisted that he use it."

* * * * *

965 MR. HAROLD RANSBURG, a witness called by defendant in rebuttal, being first duly sworn, testified as follows:

Direct Examination by Mr. Gilliom.

Q. Will you please state your name?
A. Harold Ransburg.
Q. Where do you live, Mr. Ransburg?
A. The postal address?
Q. Yes?
A. Rural Route 17, Box 530, Indianapolis.
Q. What is your age?
A. Forty-eight.
Q. What is your occupation?
A. I always call myself a manufacturer.

Q. What position do you hold with the defendant in this case?

A. Vice President.

966 Q. And will you state who your father is?

A. Harper J. Ransburg.

Q. And who are your brothers?

A. Ed Ransburg and Gregg Ransburg.

Q. When you refer to Ed Ransburg, is that Edwin M. Ransburg?

A. Right.

Q. How long have you been a Vice President of the defendant?

A. Since 1948.

Q. That is the date on which it was organized?

A. Yes.

Q. And were you a member of the partnership, Harper J. Ransburg Company, which preceded the defendant corporation in the conduct of the business which is involved in this case?

A. Yes.

Q. Who were the other partners in that partnership?

A. Harper Ransburg, Gregg Ransburg and Edwin M. Ransburg.

The Court: May I interrupt you to read this entry here which I have?

(Short pause.)

The Court: All right, Mr. Gilliom.

967 Q. (By Mr. Gilliom.) Will you tell us in what year this partnership was formed, Mr. Ransburg?

A. 1941.

Q. What other business was that partnership engaged in, that is, aside from the business of developing and marketing electrostatic spray painting processes?

A. We were in the business of manufacturing and mar-

keting bread boxes, canister sets, and wrought iron flower pot holders, household kitchenware items and gift items.

Q. And prior to the formation of the partnership in 1941 by whom was that business conducted?

A. Harper J. Ransburg Company.

Q. What sort of legal entity was it?

A. Sole proprietorship of my father's.

Q. Were you and your brothers associated with your father in that business at some time prior to the formation of the partnership in 1941?

A. Yes.

• • • • •

975 Q. Licensing people to use the No. 1 Process, did you supply them the compressed air spray guns that were used with it?

976 A. We did only where it was necessary. During the war, we had very slow delivery on those, and we put in a small stock of them to supply urgent needs, if someone was pressed for them, and as soon as deliveries became loosened up, we had them get them directly from one of the standard suppliers.

• • • • •

982 Q. Now, in marketing your electrostatic spray process and particularly your air process, Mr. Ransburg, has the basic method of licensing changed any since the defendant was organized January 1, 1948?

A. I would say basically it has not, no.

Q. And, of course, the various forms of agreements and so forth that you have executed with your licensees are in evidence in this case. You are familiar generally with those forms, are you not?

A. Yes, in general. Now—

Q. Now, how did and how does the defendant go about interesting prospects in its electrostatic painting systems?

A. We do some advertising; we are occasionally invited to give papers or talks before different meetings, asso-
983 ciations. We get what free publicity we can by offering editorial stories to magazines and then we have some field sales engineers who call on prospects in the field trying to interest them in our processes. Do you want me to carry that on through to the consummation?

Q. Just how you get people interested in the first place is what I meant to cover, by that question.

Have you answered that fully?

A. I think so.

* * * * * *

994 Q. Now, what is the policy of the defendant with respect to your process and system performing satisfactorily once a licensee has agreed to enter into one of your agreements with you?

A. Well, there has never been a case where the customer has given us the proper facilities and the proper cooperation, and where we had to admit that we fell down on the job we expected to do, that we haven't given them back their initial fee. In effect we have guaranteed a considerable number of them that they would get satisfaction.

Q. Now, as of the present time if any prospective user asks you to guarantee that your process and system will coat his product satisfactorily, assuming that he uses it in accordance with your recommendation and with the equipment which you furnish, do you give him a guarantee?

A. Yes, to the extent of the fees he has paid us.

Q. And is that guarantee placed in writing if he requests it?

A. Yes.

Q. If he doesn't request it, but your system does not do a satisfactory job on his product, assuming proper use, what is your policy?

A. Well then, I suppose there have been four or
995 five cases of that kind where we have given them back the initial fee.

Q. Even though there was no written guarantee in the contract or otherwise?

A. Yes.

Mr. Gilliom: I will ask the Reporter to mark these two documents for identification as Defendant's Exhibits 22 and 23.

(The Defendant, for purposes of identification, handed the Reporter certain documents for marking which were by said Reporter marked Defendant's Exhibits 22 and 23.)

The Court: We will have a short recess at this time.

(At this time a short recess was taken.)

996 After Recess.

Q. Mr. Ransburg, I will hand you what has been designated Defendant's Exhibit 23 which is a copy of a letter dated November 17th, 1958, from Ransburg—I should say signed by Harry E. Downer to Morrison Steel Products, Incorporated, and I will ask you to refer to the second paragraph of that letter and state whether or not that is a typical provision guaranteeing the performance of an airless electrostatic coating installation embodying the guarantee to which you have testified?

The Court: This is Exhibit 22 instead of 23.

Mr. Gilliom: I beg your pardon. It has been mismarked, Your Honor. Is that marked 22?

The Court: This appears to be marked 22, dated November 17th.

Mr. Hume: It should be 22.

Mr. Gilliom: Will you remark this No. 22.

(The Reporter remarked the exhibit as Exhibit No. 22.)

Mr. Meroni: If Your Honor please, I would like to interpose an objection to this line of examination on

997 this premise: In the course of this law suit the defendant was served with a subpoena duces tecum and was also served with interrogatories and they were obligated to produce all of their agreements and forms, and we have closed our case with the assumption that all such forms have been produced.

None of the agreements that we were furnished in response to the interrogatories in which we agreed and stipulated could be accepted as typical contain this paragraph which is apparently some practice that has been put into effect recently or since the filing of the suit.

Now, Your Honor, as evidence of the practice that was in existence prior to the filing of the suit and of which we were apprised, pursuant to the various processes is this Exhibit MMM-2, a letter dated April 28th, 1953 wherein we find this statement, this is a letter written by Ransburg to Altex Corporation:

"As you well know, the operation of the equipment and the manner in which the equipment is used as well as the type of coating material used etc. is entirely within
998 your control and completely beyond ours. This being the case, there is no reasonable basis on which we could possibly guarantee satisfaction."

Then as late as October 17th, 1956 we have a letter here which has not been identified but it is from the files of the Ransburg Company written to Emery Miller from Miller Brothers, a distributor, "You should be receiving in a few days signed agreements from the subject company together with their purchase order. You will note that they have added amendments to the agreement which was intended to substitute for a guarantee from you that the equipment would do their part satisfactorily. I explained to this that such a guarantee was impossible and that the best we would be able—the best we could do would be to state that the equipment would do the same kind of a job for them as it is doing for American Cabinet Hardware and

others.'" And that was directed to the attention of Mr. Harold Ransburg, and he replied to it on October 29th, 1956. Now that was at the time of the filing of the suit. We have had no knowledge at any time that any agreement that has been brought to our attention contained a guarantee provision such as this and we closed our case without such knowledge.

The Court: What do you say about that, Mr. Gilliom? It appears the letter is dated November 17th, 1958, long after the issues in this case were closed.

Mr. Gilliom: Well, that is correct, Your Honor. I think, however, that the matter of the present practice of the defendant would be relevant, because of the fact that one of the remedies which the cross counterclaim seeks is an injunction against practices which the plaintiff claims are in violation of the anti-trust laws and so forth.

Therefore, the present policy of the defendant would be a relevant fact, certainly with respect to any forward looking relief.

Now with respect—

The Court: I don't have a supplemental answer on your part to the cross counterclaim here bringing any issue up to date here disclosing any change in practice or anything or admission of practice.

Mr. Gilliom: If the Court please, I think that whenever there is a request for injunction that the time as of which the relief is adjudged is at the time of trial, and if there are facts which have been developed since the filing of the pleadings those are always relevant to show what the present practice is, even though there may not have been any allegation to the change and practice.

1000 The objection which counsel makes on the ground that in discovery proceedings there were efforts to obtain all of the agreements, I think is not well founded.

I doubt whether it would be a ground for objection to the

exhibit in any event. But the fact is simply this, that in the discovery proceedings, as I recall, the request was that all forms of agreement be provided and they were, all of the printed forms were provided.

Further, all of the customer files of the defendant were opened to the inspection of the plaintiff as the Court will recall, so that the plaintiff could have inspected any of the files and could have found in that inspection, examples of these letters of which Defendant's Exhibit 22 is one, so that certainly they have been placed at no disadvantage from that standpoint. I just wanted to make that clear.

The Court: What do you say about—

Mr. Meroni: If Your Honor please, we were furnished these some 45 forms, and were advised that they were representative of all the agreements. We asked them to produce all of the defendant's agreement forms relating to electrostatic spray coating articles.

The Court: What date was that?

1001 Mr. Meroni: This is the paper they filed and this was filed with the Court, this is their answer to Interrogatories 1 through 32 signed by Gregg Ransburg and filed somewhere around the 15th of November, 1956.

In answer to Interrogatory 8, they said, "All of Defendant's agreement forms relating to electrostatic spray coating of articles are attached as D-1 through D-45 and such exhibits are self-explanatory."

We acted on that assumption and in good faith, that they were truly representative, and now as recently as a month ago, they have adopted another form with which we are not familiar and on that basis we closed.

The Court: We can amend that, but the question of your objection that this is beyond the date of the issues of this case—

Mr. Meroni: That is right.

The Court: The point you raise, I am concerned about,

and Mr. Gilliom's response that the equitable injunction you have sought remedy here, that this evidence is admissible, that the injunction is based upon the day of trial or the day of judgment, at the close of the evidence rather than the date of the closed pleadings, the issues in the case.

What do you say about that?

1002 Mr. Meroni: Well, it is our position that the injunction is based on the findings of the Court and if the defendant is submitting this as something that purges itself that can be taken into consideration in the judgment, but I say we should have been apprised of it.

The Court: Well, it appears that the interrogatories were answered the 15th and filed the 15th of November, and this letter is dated November 17th.

Mr. Meroni: This is '56, Your Honor, whereas this letter is '58.

The Court: '56?

Mr. Meroni: Yes, these interrogatories were filed in '56.

The Court: Well, they speak the truth then, don't they?

Mr. Meroni: Yes, but we have never been apprised of any changes in the forms, but it seems to me when we offered these, we offered them at the trial and we offered these as being representative of the forms they were considering. They didn't step forward and say that as of November 17th they issued some new forms.

1003 Mr. Gilliom: If the Court please, just so that is amply clear, all of the forms, that is printed forms have been furnished to counsel for plaintiff. Now, of course, in the printed form there are insertions, etc.

This Exhibit No. 22, to which reference is made in the pending question is not a change in the form, in the printed forms. I think, as I recall it that the answers to the interrogatories indicated themselves that there were necessary changes and insertions, etc. in the various agreements. We have never represented those printed forms just as

they are listed there, represented every single agreement that the defendant executed, and certainly the interrogatory was answered correctly, and, as I say, the plaintiff was placed at no disadvantage at all because of the fact they had the right to inspect and this is not a change in forms.

The Court: I am not so concerned about that phase of the plaintiff's objection. I am about the phase of his objection here that this is an instrument of November 17, 1958, and a practice followed long after the commencement of the action in the filing of the amended and supplemental pleadings in the case, and that I am interested in.

Do you concede that you are wrong in your objection
1004 on that?

Mr. Meroni: I don't concede that, Your Honor. I would like to respond to my opponent's comment. We asked for the typed forms, too, and we offered those in evidence, those that we were furnished. I say they were duty-bound, in fairness to the Court, and we are in a Court of equity, and at least when we filed the substitute pleadings, and we say there is this fact to be considered, otherwise how are we going to proceed in an orderly manner?

The Court: I interpreted the request in the interrogatories to be the existing material requested on the date the interrogatory inquired into and not the change in the practice of the company following where they have to keep running in and amending the interrogatory answer to include new ideas and new things they have accomplished. I don't agree with you on that, Mr. Meroni, but your objection on the basis that this is beyond the issue in the case—

Mr. Meroni: (Interposing.) That is my objection.

The Court: That is what I am concerned with, but in your come-back argument here you conceded some to Mr. Gilliom's argument that they can purge themselves.
1005 What did you mean by that?

Mr. Meroni: Well, it is always possible for a party that is in violation of the anti-trust laws to come in and purge itself or attempt to and then say from that time on they have purged themselves.

The Court: What is the purpose of your evidence on this Exhibit No. 22, Mr. Gilliom? Is it that purpose?

Mr. Gilliom: No. I would certainly not say to the Court that our purpose is to establish that we have purged any practice which was unlawful. Our position is that there has never been any practice which was unlawful under the anti-trust laws. In meeting the broad charges which have been leveled at us in the cross counterclaim, we feel that it is relevant to bring before the Court all of the provisions of the license agreements between the defendant and its licensees which might have any bearing upon the nature of that relationship, that whole program having been called into question by the cross counterclaim and this policy of a guarantee is a standard practice of this defendant, as this witness has testified, and we feel it is a fact which is relevant on the general consideration 1006 of the arrangement, the contract, between the defendant and its licensees.

The Court: Well, I thus far have evidence from this witness, and three or four questions and answers to the effect that it has been the practice of the company generally to guarantee the performance of installed equipment to the extent that they would reimburse their customers to the extent of the amount of the down payment.

Mr. Gilliom: Initial fee.

The Court: Initial fee, yes. Maybe I was wrong in assuming from those answers that this has been the practice since the organization of the defendant company here.

Mr. Gilliom: That can be clarified, I think, by further testimony.

The Court: If so, why do you want to offer an exhibit

here of November 17, 1958? Certainly you have instances existing before the joinder of the issues in this case.

Mr. Gilliom: The exhibit is simply offered as typical and not as speaking of any particular time. It was simply an example.

The Court: I will sustain the objection on the 1007 further ground it is cumulative evidence.

Do you want to clarify that which you just suggested here that you would?

Mr. Gilliom: As to how long that policy has been in effect?

The Court: Yes.

Mr. Gilliom: Yes, I will.

Direct Examination by Mr. Gilliom (continued).

Q. Mr. Ransburg, I think that you testified in substance that this guarantee policy that you referred to is or has been the policy of the defendant with respect to licensees who might want a guarantee, and I think you said that even when they did not ask for it at the time the agreement was negotiated, that they in effect received that agreement or that treatment, is that correct?

A. Yes, if we failed to do the job that we considered we should do, and that the customer should have reason to expect in their plant, we have in every case I can think of—and I can think of no case where we didn't refund their initial fees.

Q. Can you state to the Court approximately how long that has been practice of the defendant, if you recall?

1008 A. I know that it has happened ten or twelve years ago. I think the first one was Guth in St. Louis and I believe that was back in 1947 or 1948 or 1949, along in there.

Q. And so far as the management of the corporation is

concerned has there been any change in that policy since that time?

A. I would say not in that policy, no.

Q. Mr. Ransburg, I will hand you what has been identified and received in evidence as Plaintiff's Exhibit MMM-2, a letter to Altex Corporation dated April 28, 1953, signed by Ransburg Electro-Coating Corporation by D. C. Howarth. In that exhibit, reference is made to the matter of a guarantee. Will you examine that exhibit so that I may ask you a question based upon it, please?

A. Yes.

(At this point the witness examined the above referred to exhibit.)

Q. Mr. Ransburg, have you examined Exhibit MMM-2?

A. Yes.

Q. Will you state whether the statement in the fourth paragraph of that letter with respect to guaranteeing satisfaction to Altex Corporation of the installation which they had was at variance with the policy which you have just described?

1009 A. Well, on the surface, it does appear so, but I think that given enough time, I could explain it.

Q. Go ahead and state whatever facts are relevant to that.

A. Well, this business of satisfying a customer is a very nebulous and difficult and complicated thing when it is made completely general. There are many elements of the success of an operation that are well outside of our hands so far as the specific operation, and whether or not the proper ancillary equipment to complement the operation is handled in the correct way. For instance, temperature control on the paint could be a very effective part of giving or not giving the adequate finish or satisfactory finish, and in the case of Altex, as is witnessed by this letter, evidences that they were in arrears on their busi-

ness and had had our engineers up there numerous times unnecessarily for minor maintenance problems that they should have handled themselves. They were the type of customer who was apt to give an unsatisfactory performance out of perfectly good equipment. I think like any other fine tool that can be used to an excellent degree of performance or to a very unsatisfactory degree of performance depending upon its usage and treatment, and in that sense I think Mr. Howarth followed the policy of the company in saying that in their case they could not guarantee satisfaction to them, and I think it is well implied here unless they do their part in operating it efficiently and under our recommended techniques.

1010 Q. In other words, it appears from Exhibit MMM-2 there was some failure at least in the opinion of the defendant upon the part of the licensee to follow the recommendations and procedures which were a necessary condition of your standard guarantee?

A. Right—I would not say it is a condition of the standard guaranty as given at the point of sale such as that example you showed me. The only thing there is they returned the equipment before getting their refund.

• • • • •

1034 Q. Can you state for the Court approximately how many copies of Plaintiff's Exhibit VVVVV-1 and UUUU or any reprintings of the same have been distributed by the defendant to prospective licensees since the year 1953?

A. We have been using something like 10,000 a year.

• • • • •

1037 Q. I will hand you what has been designated as Defendant's Exhibit No. 30 and ask you to state briefly, for purposes of identification, what that is?

1038 A. This is a license agreement with the Hilgren Manufacturing Company between them and the Ransburg Electro-Coating Corp.

Q. And at or about the time the Exhibit No. 30 was dated, which on the second page appears to be July 13, 1954, were you generally familiar with the transaction from which this license and agreement arose?

A. Yes, in a general way.

Q. Will you state just briefly what the facts were which preceded the execution of this license?

A. Well Hilgren had installed Ashdee Unit, and we brought suit and in the settlement, the new agreement was part of the settlement as I recall it.

Q. Now, when you refer to an Ashdee Unit, what type of process was that?

A. Electrostatic air spray process.

Q. When you say you brought suit, what was the general nature of the suit, just to characterize it?

A. I am sure it was for infringements. Ed would know more of the particulars.

Q. Infringement of the patents?

A. Yes.

Q. Owned by whom?

1039 A. Ransburg.

Q. And you say that in the settlement of that patent litigation this license was consummated between the parties?

A. Yes.

* * * * * *

1058 Q. (By Mr. Gilliom.) Will you state what the purpose of the Harper J. Ransburg Company was in negotiating and entering into Plaintiff's Exhibit UU, the agreement with the Behr-Manning Corporation?

Mr. Meroni: Your Honor, I believe that constitutes a varying of that written agreement. The agreement speaks for itself and the correspondence speaks for itself.

Mr. Gilliom: If the Court please—Excuse me—Does the Court wish to hear argument on that?

The Court: No. The objection will be overruled. Do you understand the question, Mr. Ransburg?

The Witness: Yes, I think so.

A. We wanted to remove this roadblock which was almost synonymous to—obstacle which was almost synonymous to Pugh in that they owned a patent which Pugh's issued patent showed it had been disclaimed, one or two claims, and it was that obstacle we wanted to overcome to our own marketing of our process, plus the saving of any hazard of litigation or trouble to our prospective users.

Q. You made reference to one patent with respect to which I think you said a couple of claims were dis-
1059 claimed. Do you remember the name of the patent?

A. Yes, that was the Smyser Patent.

Q. Did your corporation, did your partnership have any other purpose than the one which you have stated in negotiating and entering into the Behr-Manning agreement?

A. No.

• • • • •

1073 *Cross-Examination by Mr. Meroni.*

• • • • •

1077 Q. Now, I believe you said you circulate bulletins of your company having to do with electrostatic coating at the rate of about 10,000 copies a year or some such figure, is that about right?

A. I believe that is correct, yes.

The Court: Are there any industrial displays that are made in conventions around the country here?

The Witness: Yes, we annually go to the Metal
1078 Show which is held usually every third year at Philadelphia, Cleveland and Chicago and there have been other displays we have attended.

The Court: Did you attend those prior to the years of the filing of the suit here?

The Witness: I believe we have continuously attended the annual metal show since about 1948.

The Court: Did you display and dispose of those bulletins at those sessions?

The Witness: Yes, in large quantities.

The Court: Who attends those conventions?

The Witness: Our sales engineers, Bob Stone has always headed it up; John Maxwell sometimes, Emery P. Miller; some other supplemental sales engineers are there.

The Court: Aside from personnel of the defendant here, who attends those conventions?

The Witness: I believe it's something like that. If I recall the figure rightly, the figure that comes to my mind is something like 176,000 engineers and manufacturers representatives from all over the country in the metal working field.

Q. (By Mr. Meroni.) I call your attention to two 1079 bulletins, Plaintiff's Exhibit IIII and EEEE. You recognize these as bulletins of your company, do you not?

A. Yes, I do.

Q. Bulletin EEEE relates to your No. 1 system and to detearing, does it not?

A. Yes.

Q. Whereas this other bulletin, IIII, relates to the No. 2 process, isn't that right?

A. Correct.

Q. Now, in both of these bulletins you have got a separate heading entitled "Equipment." In Bulletin EEEE under the heading "Equipment" you say, "We supply the necessary specially designed electrostatic unit, the air and fluid air pressure controls, electrical controls, electrode systems, appropriate insulators and limit switches. The

customer supplies the other pertinent equipment. Drawings of the proposed unit are supplied as part of our engineering service."

Was that statement in the bulletins you released like Exhibit EEEE?

A. I believe so, yes.

Q. Now, similarly in the bulletin on the No. 2 system, IIII, under the heading, "Equipment" it is stated:

1080 "Ransburg supplies the complete automatic coating unit, consisting of the source of electrostatic potential, electrical controls, insulators, atomizing heads, and coating material handling system. All that the user needs to furnish is the conveyor, work holders, and solvent ventilation means. Drawing of the proposed set-up are included in our Engineering Service."

Was that statement contained in all the bulletins that were released like Plaintiff's Exhibit IIII, as far as you know?

A. I believe it was, yes.

Q. Now, in your current type of bulletin on the No. 2 process, which you previously referred to, Plaintiff's Exhibit UUUU, under the expression "Equipment," you now say: "When desired * * *" —what occasioned that change in that language?

A. You mean for what reason did we change the language?

Q. Yes, for what reason did you insert the words "when desired" before the expression?

A. My personal opinion is it was an excess of zealousness to make sure there was no possibility of mistake on that question of getting the equipment or not getting the equipment.

Q. Do you know any facts other than your opinion?

A. Well, I know that sort of thing was recom-

1081 mended by Ed and our attorneys.

Q. You were advised to make the change, in other words, were you not?

A. I didn't personally make the change, if that is what you mean.

Q. I mean your company was advised by your legal counsel to make the change, was it not?

A. I think they had been in on every writing of the bulletin we ever had.

Q. Let me put it another way: do you know whether your company was advised by legal counsel to make that change?

A. No, specifically I do not.

Q. Who would know in your company?

A. Ed Ransburg.

Q. Now, in this bulletin on the No. 2 system which is the more recent one, identified as Plaintiff's Exhibit UUUU, referring to page seven I notice an installation of the Hamilton Manufacturing Corporation. Is that one of the companies that you supplied equipment to under—as to your No. 2 process?

A. Yes, it is.

Q. Do you know about when you first licensed that company?

A. Well, it would be a guess. It's been several
1082 years ago. I would—I can guess at a date, if you would like for me to.

Q. Well, if you can give us a pretty good guess.

A. I would say it was perhaps in '47.

Q. Now, according—Does that company still have a license?

A. Several of them.

Q. Does it still have this type of equipment that is shown in this picture for coating table tops?

A. Yes, I believe it has.

Q. Now, in connection with the answer to Interroga-

tory 33, the defendants submitted a Schedule E which is now in evidence and which lists the Hamilton Manufacturing Company as being in Columbus, Indiana. That is the one you are referring to?

A. Yes.

Q. And according to this schedule they obtained a D-1 license on November 11, '48. How does that fit in now with your recollection? Does that refresh it?

A. It could have been '48 instead of '47, yes.

Q. And that license was at a—for a No. 1 system?

A. I would think that that would apply to detearing.

Q. Then a license was granted on your D-5 form with —and on April 5, '50. Does that refresh your recol-
1083 lection? If you want, you may look at the schedule.

A. Are these symbols in the right-hand corner identifying the license?

Q. Yes, there is a column or tabulation.

A. That would not mean anything to me.

Q. In the first column, without air, active air, active without air, with air, and then the last column is form of license used and the first column, under the date, is the date of the license. Now, referring only to this entry for the Hamilton Company, will you refresh your recollection from that and see if you can tell us more accurately when that company had a No. 1 license?

A. Well, it looks like December 11, 1948—November 11, 1948.

Q. I show you the form D-1 that has been offered in evidence here and which was adopted January 1, 1948 and ask you if that does not relate to the No. 1 system.

A. I think so.

Q. So that in 1948 you apparently leased and licensed equipment for the No. 1 system to this Hamilton concern, is that correct?

A. I would think so, yes.

Q. Now, was that—now that system was of the
1084 type that used an air gun and electrostatic grid?

A. Yes.

Q. Then at a later date you apparently licensed and leased a No. 2 airless system, since the system that is portrayed in this picture on page seven of UUUU is apparently a No. 2 system?

A. That is correct.

Q. And that is what you call the bell-type system?

A. We call that the triple head system.

Q. Triple head system?

A. Yes.

Q. Just so the Court knows what we are talking about, would you say it is generally of the order represented by this exhibit, 17-A?

A. Yes.

Q. And that system was one where you used centrifugal force and an electrostatic field, is that right?

A. Yes.

Q. In other words, you used both of those mediums to effect spraying?

A. Well, we used the one, the centrifugal force, to feed the paint to the head and the electrostatic force to
1085 effect the spray.

Q. But you would have to use both of them to get the paint out on the object?

A. If the centrifugal force was not present you would have to use some other means to get the paint there, yes.

Q. So the field alone does not effect spray in that type of a device?

A. I guess in a broad sense that is correct.

1086 Q. I have been referring to this bulletin as UUU and I should have said UUUU. You understand it was the bulletin, UUUU, I was referring to, showing on Page 7 the illustration of the Hamilton Installation?

A. Right.

Q. Now, referring again to this air type or No. 1 System, and just so that we are in accord as to what we are talking about, I'd like to show you a chart, Exhibit 7; and ask you if that doesn't generally represent a so-called No. 1 type of system?

A. Yes, it does.

Q. That is a system where you use an electrostatic, energized grid and you use air guns to project the paint into the grid area?

A. Right.

Q. Now, at the time you came out with that system in 19—what year was that?

A. 1944. I might say we came out with it before that but that was the first time we made a commercial installation that stayed in.

Q. Would you consider that that was a new process that resulted in a substantially improved distribution of paint as compared with say the air type systems?

A. When you say "improved distribution" you 1087 mean uniformity of paint film?

Q. Whatever interpretation you want to place on the term, substantially improved distribution of paint. Did it effect a substantially improved distribution of paint over the conventional air gun system?

A. I think it definitely aided the uniformity of paint film thickness.

Q. Would you say that that No. 1 thickness, as compared to the existent air guns or air spraying enabled a deposition of approximately 25 percent more paint in a single pass than was possible with just air guns alone?

A. You mean in a single pass of the conveyor or single pass of the gun?

Q. A single pass of the conveyor, yes.

A. Yes, I would think that it would be capable of that.

Q. Could you effect with the No. 1 System a coating job that would require less touching up than would be true with the conventional air system?

A. When you talk about touching up, it implies that the piece has been already automatically painted and needs some hand reinforcing, is that what you mean?

1088 Q. Yes. You used touch up in your direct examination. I am using it in the same sense.

A. It would depend altogether on your article involved. In cases where the electrostatic field gives an effective wrap-around to the article that might very well do a more complete job than air spray. In cases where there are deep recesses or electrically shielded areas, the straight automatic air spray might in some cases do a more complete job.

Q. Would it be possible with some articles being sprayed by that No. 1 System to dispense with the booth?

A. No.

Q. You still have to have a booth?

A. Yes.

Q. As a matter of fact, in many instances even with your No. 2 airless system, they still use booths to carry away the fumes, don't they?

A. That is the practical way to do it.

Q. In fact many states require they have booths?

A. I don't think any specific requirement has been made in that regard to the No. 2 process.

Q. But from a fire standpoint and a life hazard standpoint, it is better to have a booth?

A. Yes, that is definitely the usual practice.

1089 Q. Now, I believe you said that when you adopted the No. 2 System such as that shown in Exhibit 17A, you had less of a clean-up problem, is that right?

A. Correct.

Q. Well, tell the Court what you mean by a clean-up problem.

A. Well, with the conventional hand manipulated air spray gun very large quantities of paint misses the object and goes onto the conveyor or the floor, or the work holders and in some cases, in large installations into water wash spray booths to be collected, and from getting out into the air and contaminating the neighborhood. All of that must be cleaned and where cleanliness and quality finish is required such as on refrigerators for instance, it is a daily job and a constant and continuous job. We have one installation that comes to my mind where a crew of five men came in at Studebaker every night and spent the full shift cleaning up the two booths they were using with an air type conventional automatic spray and when they converted to our bell type of electrostatic, they only had to clean their booth once a week except for a minor cleaning of the inside of the bells at lunch time and coffee break time.

Q. Referring to that part of the cleaning, it is true 1090 that no matter whether you use an air gun or a bell or a disk, if you let the spray device or emitter stand overnight, you have to clean it, don't you? The paint congeals?

A. In general it is good practice and good housekeeping. It isn't always done. The paint won't congeal, no. Usually it will not congeal.

Q. Don't you in some instances even provide special equipment for dipping the applicator head in a solvent to clean it?

A. Are you talking about the automatic equipment?

Q. Yes.

A. Not to my knowledge.

Q. Well, aren't there devices on the market for dipping the emitter device in a solvent to clean it?

A. Oh, yes, there are solvent cleaning cans for cleaning off spray gun nozzles and things. We have never supplied any such.

Q. In order to show the Court what we mean about cleaning a gun, we have here, and I believe this is the only sample available, Exhibit No. 9. Do you recognize that as an applicator, or do you not?

1091 A. Yes.

Q. Does that present any cleaning problem?

A. That would be a difficult cleaning problem, yes.

Q. Probably be so difficult that it would be almost impossible to use one, wouldn't it?

A. I don't like to use the word "impossible".

Q. You never commercialized a device like that?

A. I have never seen it used commercially, no.

Q. Do you know whether your company has ever sold a device like this Exhibit No. 9?

A. I don't believe we have sold a device like that.

Q. To clean that, you would have to get in there and clean out all of these little holes, wouldn't you?

A. Either that or flush it out with sufficient solvent so you would be certain all the residue would be out of there before you stopped flushing.

* * * * *

1097 Q. Now referring to your No. 2 System of the bell or disk type, I believe that is the type you market, isn't it, the bell or the disk type?

1098 A. Yes.

Q. When did you first market that type, that is, grant a license and a lease?

A. I believe it was 1949.

Q. Now as of that time, that is when you first came onto the market with the No. 2 System, how many licenses would you say you already had outstanding on the No. 1 System, approximately?

A. When you say when we came on the market, I would have to put that date at the middle of 1951 instead of 1949.

Q. Yes. Because in 1949 you were on the market with Kurt Simons, but that was not of a bell or disk type, was it?

A. That is right. And between that period, we had changing models and modified equipment sent out experimentally between '49 and '51, and I would say that we finally put it on the market in '51, so I think if I understand your question right as to putting it on the market, I think we should relate the date to '51.

Q. All right, let's relate it to '51. When you came out on the market with your present type, the No. 2 System after your experimental work was over, let's say in 1951, how many licenses did you have outstanding, roughly, in the No. 1 field?

A. I would guess that we had around 150, 175
1099 units. I think Don Howarth might answer it more accurately.

Q. But there was no doubt that by 1951 you were well established in the electrostatic coating field and market?

A. Yes.

Q. Were you able to take advantage of your establishment in that field, that is the momentum of it in introducing your No. 2 System?

A. Well, I am sure that that did help, just like General Motors, each new model enjoys the benefit of their reputation prior to that model.

Q. You were able to sell a great many of your customers on the No. 1 System, your No. 2 System, weren't you?

A. Yes.

• • • • •

1106 Q. Will you turn over to a letter dated May 20th to Harper J. Ransburg, May 20, 1941, from Behr-

Manning wherein they refer to Mr. McKnight and the Minnesota Mining Company as apparently having an interest in some of these patent applications? What do you know about that?

A. Well, during our negotiations with Behr-Manning there was a considerable amount of sparring and shuffling around. They were, perhaps both of us, were doing a certain amount of whistling in the dark. I suppose. And they were trying to show themselves extra strong in our area and I suppose there was some vice-versa, in the nature of negotiating to get the best sort of an arrangement, each company for the other, looking out for each company's own interest, and after a certain amount of that I recommended that we both disclose our pending patent application to each other so we could ascertain what we each had for each other, if anything; and this was in connection with that. Apparently Mr. Schacht or somebody over there got in touch with Minnesota Mining Company, who had some interest in the Smyser Patent originally and I think then was assigned to Behr-Manning
1107. from the Minnesota Mining Company or some such arrangement, and I don't know whether the Minnesota Mining Company retained some interest in it or what that connection was; but in any event, the reason that they demurred on disclosing their, or, refusing to disclose their patent applications was due to this reference to Mr. McKnight of Minnesota Mining which; as I recall it, rather closed off our negotiations at that time.

Does that fully answer your question?

Q. Well, one phase of it. I will propound another question. In this letter of May 20, 1941, and we are still talking about this Behr-Manning file which is Exhibit—

The Court (Interposing): PPPP.

Q. (Mr. Meroni continuing.) • • • PPPP, it says referring—it gives a quotation of Mr. McKnight. "I have

a very strong feeling that it is unwise to disclose these pending applications, particularly where there may be a conflict of interest and my natural inclination in this matter is that it would be a mistake to make these disclosures."

Is that what you are talking about in regard to these applications?

A. Yes. You see, while the Smyser Patent had 1108 taken a claim or two away from Pugh, as I showed on the face of the Pugh issued patent there was no way of knowing what the reissue might issue with. It was back again on the pending basis and, of course, since it took a claim or two away from Pugh, that seemed to be pertinent to our activity and our field that we were interested in. We were very interested in seeing what else Smyser might have that might be of interest to us on our redevelopment work. But they refused to go along with that thinking.

Q. Well, you didn't consummate any deal for the purchase of the Pugh Patent as of May 20, 1941. As a matter of fact, you didn't buy that patent until a much later date, isn't that a fact?

A. Yes, that is true. I think it was 1943 sometime.

Q. So that you weren't concerned with the Pugh Patent at that time because you had not acquired it, had you?

A. We were concerned with it, although I think the negotiations drug out for some time, didn't it, Mr. Meroni, on the Pugh Patent?

Q. Yes. It ran for a considerable time beginning with April 1, apparently, and this last page SSSS, is June 23, '43. But it does not appear as of May 20, 1941 you 1109 had acquired the Pugh Patent.

A. No, we had not, that is correct.

Q. Now, in this same letter of May 20th referring to that quotation, it says: "This quotation refers, as I have previously explained, particularly to the Symser reissue application and to one or two other pending electrostatic applications which Minnesota Mining Company is solely prosecuting but over which Behr-Manning will eventually exercise control due to the acquisition by assignment."

Do you know of your own knowledge that the Smyser reissue application that was referred to was the one that ultimately reissued in the Smyser Reissue Patent RE-22419 which I showed you a little while ago?

A. I am confident the one you showed me is the one in question, yes.

Q. And that reissue came out as of January 11, 1944, isn't that right, sir?

A. That is my recollection, yes.

Q. Now, did they tell you at any time that they had a deal or some sort of a contract with Minnesota Mining Company?

A. We knew there was some connection there but we didn't delve into it, what the connections were.

Q. Just what did they tell you and when?

1110 A. Well, of course, this letter probably is more revealing on that question than anything I can recall, but we did know that the Symser Patent, I believe on its face, on its original issuance was assigned to Minnesota Mining but that it was then procured, or rights under it was procured by Behr-Manning somehow or other; I don't know how.

Q. Did they tell you they were in joint venture with Minnesota Mining in the solid particle electrostatic field, or words to that effect?

A. They may have; I don't recall.

Q. You would not say they hadn't told you that?

A. I would not say either way, Mr. Meroni. All of our dealings were directly with Behr-Manning and our only interests were the rights they could give us.

Q. Now, the next paper, there is a letter dated July 3, 1944. By that time you had acquired the Pugh Patent. Is that in accord with your recollection?

A. Yes.

Q. So that this hiatus in this, in these negotiations with Behr-Manning were more or less held in abeyance pending your consummation of the deal on the Pugh Patent, were they not?

A. Does "hiatus" mean stalemate?

1111 Q. No. I mean the interval of time there, the gap between May 20, 1941 and July 3, 1944; it was in that interval of time you acquired the Pugh Patent?

A. We did acquire it during that interval of time, yes.

Q. Did you hold up the negotiations between May 20, 1941 and July 31, 1944 because you were trying to get the Pugh Patent first?

A. No. As a matter of fact, as I said before, I thought that the sensible and fair way to proceed in these negotiations was for us both to show each other what patents we had pending. They claimed to have patents that would worry us in our field and we felt we had some that might read on some of their work in their field; but they were pending and I proposed we show each other those pending applications, which they refused to do by this last letter we discussed.

Q. They didn't want to put their cards on the table but wanted to play poker?

A. Well, I guess so. There was some mixed feelings on our part as to whether we should or not, but we did proffer that as a solution as to our getting together on some arrangement, if we could understand what they had

and they understand what we had, we would have more of a basis for negotiating.

1112 Q. I didn't mean to interrupt you, so if I interrupted anything you were going to say, go ahead and say it, in response to the last question.

The Court: Do you want to read the question and answer thus far?

Mr. Meroni: I am sorry I interrupted him.

(The preceding question and answer was read by the Reporter.)

The Witness: I have it straight.

The Court: The witness has indicated he has it straight. Now show the answer continuing.

A. (Continuing.) The other thing I would like to supply in answer to that question, what we really were waiting for during that length of time was the Smyser reissue. We expected our attorney at that time, and in fact he told us he would watch for it because we were very anxious to see what it had in it when it issued. It turned out that I believe, in a subsequent letter to my letter to Mr. Schacht on July 3rd, 1944, I think in probably a letter responding to that my guess is they told us that the Smyser

1113 patent had issued. Right after that time, after I first wrote Mr. Schacht we found out it had reissued and we cabled Mr. Lockwood when he was out of town on a holiday, and I believe there is a telegram responding to that.

Q. The issue date of that Smyser reissue is January 11, 1944, if that is any help, and if there are any letters that bear on that that you want to call attention to or telegrams, do so.

A. I am sorry. They wired us on July 22nd and asked for a meeting in Chicago in response to my letter and it was at this meeting that they told us the Smyser patent

had issued. We got a copy of it and sent it to Lockwood on his holiday.

Q. Then actually when you picked up the thread, so to speak, in this negotiation with Behr-Manning, by writing this letter of July 3rd, after a lapse in the correspondence, you had acquired by that time knowledge of the fact that the Smyser patent had issued on January 11?

A. No, we acquired that knowledge at our next meeting, right after July 22nd.

The Court: What year?

The Witness: 1944.

1114 Q. Then your attorneys, or someone else had not appraised you of the issuance of the Smyser reissue on January 11th?

A. That is correct. Behr-Manning appraised us of that.

Q. So you feel that when this letter of July 3rd, 1944, was written, you did not as yet have knowledge of the fact that the Smyser patent had issued?

A. That is right.

Q. Referring again to that letter of July 3rd, 1944, and we are still talking about PPPP, you say "Our work has progressed considerably and we are now preparing to launch an increasingly aggressive operation in the application of various coating materials to manufactured articles in the industrial finishing field. You may or may not have heard that some of the preliminary installations we have made have proven highly successful and are attracting some worthwhile attention." Were you referring to some No. 1 installations?

A. Yes.

Q. Continuing in the letter "I know that you will be interested to learn that our patent picture has been improved by the issuance of five patents to us and the ac-

quisition of the Pugh patent. We have also been
1115 fortunate in effecting some very constructive improvements on which we have applied for additional patents." Did you advance that information to them in the hope that you could renew their interest in your situation?

A. Well, you see when our negotiations bogged down in 1941, we had several patent applications pending and they had several patent applications pending which they either implied or told us might be of some concern to us and we certainly knew of one they had pending that was of serious concern to us and I think that probably the next paragraph explains my personal feelings on the matter better than any other.

Q. Would you read that?

A. It says, and this is my letter of July 3rd to Mr. Schacht, 1944, the next paragraph—"Notwithstanding the wide separation of the fields in which we have been operating, it is easily possible that certain aspects of our patent protection might well overlap, particularly in view of the present Pugh status."

Q. You had no definite knowledge at that time that they would overlap? You were conjecturing that they might?

A. We were apprehensive about it in view of the
1116 fact that on, or at this stage, July 3rd, we had by that time licensed several people with full patent infringement indemnification and every time we licensed them with full patent infringement indemnification, naturally we didn't know what the Smyser reissue was going to come up with.

Q. You go on to say "We mutually can expect every advantage from resuming the discussion to some mutually satisfactory conclusion so that each of us may aggressively pursue our endeavors without concern." There is no question from this statement that you were seriously endea-

voring to reopen the negotiations with Behr-Manning at that time.

A. That is correct.

Q. Now, would you refer in Plaintiff's Exhibit PPPP to the letter dated August 8, 1944. There you send the Behr-Manning Company copies of four patents, do you not?

A. Yes.

Q. Are those patents some of those you had issued that you were referring to, do you recollect?

A. I presume they were.

Q. Now, in the second paragraph you said "We'd like to point out that the claims in our Patent No. 2334648 1117 are of considerably greater significance * * *" and here my copy is faded "* * * than one not well versed in our particular field could possibly appreciate." What did you mean by that?

A. I don't know.

Q. Then you go on to say "Patent No. 2270341 is the one to which we referred as possibly interesting to you in the abrasive or pileius fabric field or at least one in which you could contribute materially in the composition cork industry or the fireproof insulating shingle industry." Do you know anything about that patent?

A. Yes, I do.

Q. Tell us what you know about that patent.

A. Well, I was the inventor of it. It looked like it might have some potentials, but needed some work on it. It was a little outside of the field that we were really interested in. It was coating in a sense but it was coming closer to coating abrasives than articles, which was our main concern.

Q. Well, I hand you this patent, 2270341, identified as KKKK and ask you if that is the patent you are talking about?

1118 A. Yes.

Q. That is KKKKK rather.

A. Yes.

Q. The patent is entitled Method of Coating Granular Materials. I take it from that title that it related to solid particle material, is that right?

A. That is right.

Q. Do you know if that was the only patent you had procured in the solid particle field?

A. I believe that is right.

Q. And you were willing to give the exclusive rights under that patent in the solid particle field to the Behr-Manning Company in exchange for liquid coating rights from them?

A. This wasn't in the abrasive field. It was designed for applying an adhesive to composition cork and we thought that it might be applicable as well to shingles, etc., but it was primarily directed at making a material that was comprised of small fragments of cork that were coated electrostatically with an adhesive and then comprised in different shapes for composition cork.

1119 Q. Did you or did you not give the exclusive rights in the solid particle field under this Patent 2270341, to Behr-Manning Corporation?

A. I don't think solid particle field is the terminology used in the agreement. I think it says something about pileius and fibrous abrasives and fibrous shaped particles or something like that. It wasn't as broad as solid particles, as I recall.

Q. Well, we will get the agreement here and I will show it to you. I will hand you Plaintiff's Exhibit UU which is an agreement dated September 26, 1944, and ask you if that is the agreement you refer to?

A. Yes, I am sure it is.

Q. Does it refresh your recollection as to what language

was used in that regard and if so state wherein it is refreshed?

A. It says "Such exclusive license shall apply and be limited to

"(a) Abrasive articles of every kind involving the electrostatic propulsion, dispersion, orientation, deposition, or classification of solid and/or liquid particles;

1120 "(b) Flock coated articles or articles coated with fiber-shaped particles of material of every kind involving the electrostatic propulsion, dispersion, orientation, deposition, or classification of liquid particles and/or solid fiber-shaped particles and/or comminuted fiber-shaped particles; and

"(c) For the separation, grading, or classification of abrasives or fiber-shaped particles of material used in connection with the fields described in (a) and (b) above, according to kind, size, and/or weight."

Q. There is no doubt in your mind but what that would embrace granular materials, is there?

in the liquid coating field for yourself and give the solid materials, which is too broad for me to accept.

Q. Well, roughly speaking, didn't you retain any rights in the liquid coating field for yourself and give the solid particle rights to Ransburg? Wasn't that the intent of the arrangement?

Mr. Gilliom: The defendant will object to that question on the ground it calls upon the witness to interpret the written instrument which speaks for itself.

1121 Mr. Meroni: I will withdraw the question.

Q. Would you refer now in that agreement, which is before you, Exhibit W to Exhibit A. There is listed in that section under U. S. Patents five patents, is there not, of your company?

A. Yes.

Q. And you granted the exclusive rights in the fiber-

shaped particle field under those patents to the Behr-Manning Company, isn't that right?

A. Yes.

Mr. Gilliom: May I have the answer stricken for the purpose of an objection?

The Court: The answer will go out for the purpose of an objection.

Mr. Gilliom: The defendant objects on the ground it calls upon the witness to place a legal interpretation upon a written instrument which speaks for itself.

Mr. Meroni: I am asking if they executed the agreement and gave the rights to Behr-Manning.

1122 The Court: If there is something ambiguous about this exhibit, the contract there, I would permit some testimony on that, but there has been no objection to this instrument. Has it been stipulated?

Mr. Meroni: I will withdraw the question and present it another way.

Q. (By Mr. Meroni.) There is no question that your company consummated this agreement?

A. No.

Q. There is no question but what the agreement is still in force and effect, referring to this agreement, UU?

A. I think it is, yes.

Q. Now, it appears on the top of the agreement, and from the answers to certain of the interrogatories that it went into effect as of the 26th day of September, 1944. What is your recollection of that?

A. That conforms.

Q. The 26th day of September, 1944?

A. That is about the time I recall.

Q. Well, I was in a little quandary about that from
1123 these papers here because it appears from this file PPPP that after September 26, 1944 there were

further changes and drafts discussed in the correspondence. Do you know anything about that?

A. Well, the details of that were handled by our attorneys under Ed Ransburg's direction and I think he might be more competent to explain that. I don't recall unless we agreed in principle on that date of September 26th, but the attorneys wanted to clean up some language later, or something.

1125 Q. Well, I would like to call your attention to a letter dated November 13, 1944 in this Exhibit PPPP which is written to the Behr-Manning Corporation and more particularly to the second paragraph reading as follows:

"Our greatest concern * * *"

A. (Interposing.) November 13th?

Q. Yes, 1944. Do you have it before you, sir?

A. Yes.

Q. Second paragraph, "Our greatest concern and that to which we have given the most thought and consideration was the question of just how to word our future license agreements so that there could be no question in the minds of our users that they were restricted from operating in your fields and still not operate—and still not create undue sales resistance for ourselves. It was originally our thought that would best be accomplished by adding to our license agreements, 'said right does not include the use of this process in the manufacture of abrasive articles or articles coated with particles of fibrous material of every kind.'"

Do you know anything about that?

A. Yes, we did include such wording or some similar wording as this in our printed formal agreement.

Q. Did you participate in any way in the drafting
1126 of this letter of November 13, 1944?

A. I think I probably did.

Q. Is it correct to say that as highlighted in Paragraph 2 that the point they make there was your greatest concern?

A. I don't believe I would have personally used that language. It seems undue emphasis on the matter of wording of a rather simple thing to me, I don't know.

Q. Who wrote the letter?

A. My father.

Q. Well, did he consult with his sons when he wrote it?

A. I imagine he surely did and probably, no doubt, with our attorney to some extent.

Q. Well, you were acting in this transaction by and with advice of counsel, were you not?

A. Yes.

Q. Now I call your attention to the letter of November 24, 1944 from Behr-Manning to your company. Would you turn to that, sir, on Exhibit PPPP? Do you have it?

A. Yes.

Q. Now that letter is dated November 24th and it says: "Enclosed you will find three copies of electro-coating agreement which has been signed by Behr-Manning in the form in which the agreement was re-drafted as 1127 outlined in your letter of November 13th."

Do you have any way for accounting for the fact that the agreement was still dated as of the 26th day of September of 1944 even though it was being sent back to you signed on November 24?

A. Well, I presume that we agreed to that date as the official date of our agreement and then had some tidying up of words to do here with our attorneys afterwards.

Q. Well, now, refer to the third paragraph of that letter, he says:

"If this is the case, and since no licenses have, to your knowledge, been granted in the flock or abrasive fields, we do not foresee difficulty or conflict with any of your existing licensees and it should not be difficult for you to

so limit your future licenses as to prohibit the employment of the patents under which you have given us exclusive rights for abrasive and flock coated articles in these fields."

I presume the patents he is talking about are the ones that are identified in Exhibit A as the ones you previously referred to in Exhibit UU, is that correct?

A. I don't think this is referring to patents, I think it is referring to licensees, employment of patent.

1128 Q. It says "prohibit the employment of patents under which you have given us exclusive rights."

A. Yes, I imagine that is true.

Q. Now do you still have before you Exhibit UU which is the agreement, or have I?

A. No, I have it.

Q. Referring again to Exhibit A, I would assume that the list—

A. Which is Exhibit A?

The Court: That is in the agreement.

Q. That is the Exhibit UU, sir. I will wait until you have it. Exhibit A is at the end of it.

A. Oh, yes.

Q. Do you have it before you, sir? There are nine applications listed there. Do you know if those were all the applications you had pending at that time?

A. I think they were all at the time of the agreement.

Q. In Exhibit B, there is listed the patents of Behr-Manning under which you obtained certain exclusive rights, and there is also listed applications. Did your company grant licenses under some of those patents as far as you know?

A. To the extent that they applied to our license, I expect so, yes.

Q. Well, did you ever determine definitely that

1129 any of them did apply?

A. I personally didn't, no.

Q. Well, did you ever receive any advice from your attorneys that any of them did apply?

A. We felt that the Smyser reissue patent did apply, yes.

Q. Was that the only one?

A. I wouldn't be sure of that.

Incidentally, in reading this last letter, Mr. Meroni, if I may expound on that, I think it refreshes my memory to the point, one point of considerable concern was the fact that we had put out several agreements that had no limitations at all prior to the Behr-Manning agreement and it was of some concern to us as to whether or not, and actually I think Dad felt the concern was more than I did, with the technical matter of principle with him, that we had officially given out, let's say, ten or fifteen or perhaps twenty licenses without any limitation on it as far as this flock coating and fiber shape particles were concerned, so we had in effect, technically given them an agreement that we had already put ourselves in the position that we technically couldn't perform 100 per cent. And I think that is what is meant by our greatest concern.

Q. Well, whatever it was, you rectified it, didn't you?

1130 A. Yes, we satisfied them by giving them a list of all of our outstanding licenses and then they were satisfied to accept them.

Q. Have you ever received any complaint from Behr-Manning that you have—that you had not performed under the agreement?

A. No.

Q. Have you ever in turn complained to Behr-Manning that it has not performed under the agreement?

A. No.

The Court: Have any of your licensees ever complained that they were shut off from the abrasive field?

The Witness: No, they have not.

Q. Now I hand you a printed agreement—or pardon me, a typewritten agreement, No. 3448, which is identified as ZZ-1 and ask you if you included it in this agreement, if you included in this agreement this provision in order to comply with the agreement with Behr-Manning Corporation, referring to Article 1, the last line says, last three lines, "But said rights shall not include the use of said process in the manufacture of abrasive articles, flock coated articles or articles coated with fiber shaped particles."

A. Yes, that was in order to comply with the Behr-
1131 Manning agreement.

Q. Does that particular license relate to a No. 2 System or not?

A. Is this Ransburg atom spray process? Is this our form that was typed up?

Q. It purports to be an agreement between your company and the Enamel Steel and Sign Company, isn't it?

A. Yes, that is probably before we had any printed form and this was a different contract altogether anyway.

Q. This was a special deal, wasn't it?

A. Yes.

Q. As I understand it at that time you didn't have in existence the centrifugal bell or centrifugal disk type applicators, is that correct?

A. We didn't have the bell or disk type applicators in March of '49.

Q. Now I call your attention to an agreement here, Exhibit ZZ-2, which purports—well, that is the one you just saw.

I will show you ZZ-3 which is another one with the Enamel Steel and Sign Company and it contains this provision, "But said rights shall not include the rights of

said process in the coating of any articles which Ransburg may designate at any time during the period of this
1132 agreement." What was meant by that, do you know, referring to Paragraph 1?

Mr. Gilliom: If the Court please, I believe the defendant will object to the question on the ground it calls for the witness to make a legal interpretation of the written instrument that speaks for itself.

Mr. Meroni: I am asking what he meant by the technical language. I think we are entitled to explain that.

The Court: The objection will be overruled. You may answer.

A. Mr. Meroni, I think I would rather you would ask Ed Ransburg about this than I. It was written by him and signed by him and negotiated by him and I really don't know what was intended by that paragraph.

Q. All right, sir. I hand you what purports to be another agreement with the Pittsburgh Corning Corporation, Serial 5860 entitled Exhibit ZZ-4 in the first paragraph I note this limitation, "But said license shall not include the right to use said process in the manufacture of abrasive articles, flock coated articles or articles coated with fiber shaped particles." Was that provision put in that in order to comply with the Behr-Manning agreement?

1133 A. It would have to be, yes.

I would like to see it again, if I may.

Q. Yes, sir.

A. This certainly appears to be a No. 2 process experimental unit, which I believe is outside of the Behr-Manning agreement. I don't think the No. 2 process was involved in the Behr-Manning agreement—it is my recollection.

Q. Well, you have the limitation in that agreement, do you not, that you were incorporating in these agreements pursuant to your arrangement with Behr-Manning, isn't that true?

Mr. Gilliom: Excuse me, may I have the question read, please?

(The preceding question was read by the Reporter.)

Mr. Gilliom: May I ask a preliminary question at this time, preliminary to an objection?

The Court: No, the exhibit is already in evidence. It isn't any question of admissibility. If it pertains to cross examination, we can wait until we get in it. But you may state your objection, if you wish.

Mr. Gilliom: I have no objection to the question. My purpose was to ask the question of whether or not he had personal knowledge.

The Court: You can straighten that out on cross examination, otherwise we will just be interrupting time and time again.

1134 Q. Mr. Ransburg, if it might straighten you out on this point, I have another one here which is definitely on the No. 2, Exhibit ZZ-7, and which likewise says, "But said rights shall not include the use of said Process in the manufacture of abrasive articles, flock coated articles, or articles coated with fiber-shaped particles." And I am referri to the top of page two. Does that refresh your recollection as to that limitation having been included in your No. 2 license agreement?

A. I know in general it was not. These must have been a few of the—This is dated 1955, isn't it? I frankly can't explain that. In the printed form it is not.

Q. Do you admit that the ZZ-7 is clearly for the No. 2 system?

A. Well, there is nothing on the face of it to make it obvious. By checking this drawing number it could be ascertained.

Q. Doesn't it right on the face of it say "electrostatically atomized"?

A. Not that I see. It has—

Q. (Interposing.) I call your attention to the second paragraph, where it says, "and covering methods and apparatus used in coating articles with electrostat-
1135 ically atomized and electrostatically deposited coating material"—Doesn't that spell it out?

A. The second paragraph I have not found it, I find "electrostatically depositing of materials."

Q. May I assist you, sir?

A. Yes.

Q. You are looking at the Pittsburgh agreement and I was referring to ZZ-7. You are looking at ZZ-4.

A. Oh.

Q. Now, on ZZ-7, I call your attention to the second paragraph where it says the apparatus of coating materials were electrostatically atomized and electrostatically deposited. Is there any question about it being the No. 2 agreement?

A. No. That would be the No. 2 agreement.

Q. There is no question about that agreement including this restriction on the top of page two: "But said rights shall not include the use of said process in the manufacture of abrasive articles, flock coated articles or articles coated with fiber-shaped particles." That is the same limitation you were putting in these agreements pursuant to your agreement with Behr-Manning, isn't it?

A. I don't believe it was in pursuant to the agreement with Behr-Manning. I think some of our over-
1136 zelous attorneys kept on using every phrase that was in the standard form or certain excerpts copied from our standard form in the specialized agreement for the first experimental No. 2 units that were put out. This was dated June of '49 which would mean that it was one of the very first experimental No. 2 units to be installed. It was put out on a confidential and experimental basis.

Q. But it is there?

A. Yes, it is here.

Q. The agreement went into effect. You don't quibble about that?

A. No.

Q. Now, you later started printing your agreements, isn't that true?

A. Well, we had printed them long before that, as our agreements became standard forms.

Q. Well, starting with your form D-1 and going up through, say for example up through D-20-A that you furnished in this cause, you used a, regularly in these printed agreements, this expression or one substantially like it: "But said rights shall not include the use of said Process in the manufacture of abrasive articles, flock-coated articles, or other articles coated with fiber-shaped par-
1137 ticles." And if you want to examine D-1 to D-20-A you are free to do so. You can identify them as you want to as you go along.

The Court: That seems to be quite a package, gentlemen, and we have had Counsel on his feet for an hour and one half and the witness in the witness chair. Suppose we just recess.

Mr. Meroni: Thank you.

(At this time there was a short recess.)

1138 After Recess.

Mr. Meroni: By agreement with counsel, I will withdraw that previous question because I believe the printed documents will be self-explanatory in that respect, Your Honor, and save time.

Cross-Examination by Mr. Meroni (continued).

Q. I hand you what purports to be some notes identified herein as Plaintiff's Exhibit HH and which has been offered in evidence. I will ask you if you can identify those notes?

A. Yes, I can.

Q. Are those your notes?

A. Yes.

Q. It is entitled "General Electric Company Refrigerator Presentation Notes" and I believe there is a date in the upper right-hand corner of January 2, 1954, is that right?

A. Right.

Q. Those notes that you made in connection with a speech and a film that you gave to a meeting?

A. It wasn't a speech. It was a conference around the table, yes.

Q. Who were present at the conference?

A. There was Jim Juvinall, Robert Juvinall, Don
1139 Howarth and I believe John Maxwell and myself from our company.

Q. Your sales people?

A. My sales and development engineer.

Q. Did you have a secretary take down the notes?

A. These notes were given in preparation for that meeting. They were made up to get my thoughts together for the meeting.

Q. Did you dictate them?

A. Yes.

Q. Did your dictation for that meeting include this statement: "We submit to you, therefore, that in most of the industry those who have been through this confusing mill don't take these things too seriously, and that most people realize that there is a very considerable probability of error in this field"? Did you dictate that?

A. Yes. I would like to add "this field" means the refrigerator industry in particular.

Q. And you were referring there to the matter of efficiency, were you not?

A. Yes.

Q. What was the purpose of that meeting with these people of your organization?

A. The purpose of the meeting was to stimulate their interest in the No. 2 process.

1140 Q. Were you sort of giving them a sales pitch?

A. I guess you might call it that, yes.

Q. Now, I hand you a group of papers which have been identified and offered in evidence herein as Plaintiff's Exhibit RRRR which purport to relate to negotiations with the Brush Development Company. Did you participate in those negotiations at all?

A. Yes, I did.

Q. And was that in connection with the Gravley patent on detearing?

A. Yes.

Q. I call your attention to a copy of Gravley patent No. 2359476 which appears in Plaintiff's Exhibit GGGGG, and ask you if that is the Gravely patent you finally acquired from Brush Development Company?

A. Yes, I believe it was.

Q. Now, as I understand from this group of papers here, which I have handed to you in connection with the negotiations, namely, Exhibit RRRR, you did not immediately

acquire that patent but first entered into an agreement with the Brush people? Do you remember that?

A. My understanding is that initially we got exclusive or nonexclusive rights in the paint field.

1141 Q. Well, can you turn over in the group of papers to the agreement entitled "Memorandum Agreement" and that follows the letter of September 22, 1942. Is that the agreement you are talking about?

A. It says September 19th, I believe.

Q. This agreement seems to be dated, I think the 17th, isn't it, of September, 1942, or is that the 19th? It looks like the 17th on my copy.

A. There is a letter here to Mr. Lockwood on September 18th, and a letter from him of September 19th, and then the Memorandum Agreement.

Q. And the agreement is dated September 17th, is it?

A. That is correct.

Q. Is that the agreement you are talking about?

A. Yes.

Q. And there we find identified the Gravley subject matter which was then pending in the Patent Office its application, Serial No. 313914 that corresponds to the application of this Gravely patent, 359476 which I called your attention to a moment ago?

A. Yes, it surely does.

Q. And the patent issued on that apparently on October 3, 1944, which is after the date of your agreement?

1142 A. That is right.

Q. Now, under the terms of this agreement, more particularly Paragraphs 2-A and 2-B, the parties had certain particular license rights, is that what you were referring to when you said awhile ago you had some license or something?

A. Yes.

Q. And then under Paragraph 4 we find this provision:

"Both parties agree that they will not until the final determination of said interference"—

A. (Interposing:) Something seems to be missing. 4 seems to be missing in mine. It skips from Paragraph 2 to Paragraph 6.

The Court: Just turn over a page. Maybe it is out of place there.

The Witness: Yes, here is 4.

Q. It is out of place, is it?

A. There is a duplication in here, I believe.

Q. You find Paragraph 4 and the one I am referring to?

A. Pages 1 and 2 are in here twice.

Q. Both parties agree that they will not until the final determination of said interference grant any license, any license to others under their said respective applications to manufacture or sell the apparatus covered by said 1143 applications without first obtaining the approval in writing of the other party. Did you live up to that obligation? I mean by "you" the Ransburg Company.

A. How long is this agreement in effect, do you know, Mr. Meroni?

Q. You apparently acquired the patent some time in May of 1943. It was the assignment at the back of these papers, the last two pages.

A. Well, I feel confident that we did live up to that although we must have gotten their approval on several licenses that we issued between September 17 and you say April of 1943?

Q. No. The assignment doesn't show the date of execution but appears to be May of 1943.

A. I would be confident that we did live up to this but it would seem to me we must have gotten their permission for several licenses in the interim time between September 17th and May of 1943.

Q. Do you know whether you got the permission or not, or don't you recall?

A. I don't know of my own knowledge, but I would assume that we did.

Q. Let's see if we can explain to the Court here what was involved. As I understand it, the Brush Com-
1144 pany had a patent application Serial No. 313914 filed January 15th of 1940 involved in a patent office interference with your application, Harold P. Ransburg, Serial 3—and it looks like 66 or 86—529, filed November 22, 1940. Do you recall that you were in the interference?

A. Yes.

Q. That was a conflict in the Patent Office between your application and Mr. Gravley's in which the issue was who was prior in point of time? You so understood that?

A. Yes.

Q. Do you remember the outcome of that interference?

A. I believe that Gravley issued but I don't believe the interference was finally determined as an interference. I have a vague recollection.

Q. In any event, Gravley got the patent and you eventually bought it, is that right, or did you?

A. I don't believe it was a purchase. I think it was another legal terminology. I don't believe it was a pur-
chase.

1145 Q. Well, the last paper in that file that I gave you there on this matter had an assignment. Does that refresh your recollection at all?

A. Well, are you considering an assignment and a purchase synonomous?

Q. Well, did you acquire an assignment of the patent? Let's put it that way.

A. I believe we did except for shop rights for them.

Q. I beg your pardon?

A. I believe we did acquire an assignment except for shop rights for them, that is my recollection.

Q. I believe that the patent is still in force and effect, isn't it?

A. I—yes.

Q. (Interposing.) We can verify that.

A. It would have to be, because it was '43 that it still wasn't issued—in '43, wasn't it?

Q. That is right. It issued in '44 so it wouldn't expire until '61?

A. Right.

Q. Do you have any way of explaining this situation? You were apparently primarily interested in obtaining rights under a Smyser application or patent from
1146 Behr-Manning, yet in the cross license there is listed a great many patents of Behr-Manning. How did it happen that you got rights under all of the others?

A. I think in both cases we didn't try to determine each and every one of those patents and their possible eventual effect in the field of electrostatic painting, and I think that they had the same attitude regarding our patents and applications. We both wanted a free hand to proceed in our different fields without any thread of infringement from somebody in some other field to us or our customers, and I believe the attitude was more or less that we were happy for them to include all of their patents and applications and we were happy to include all of our patents and applications because neither of us had any interest in the other's field.

Q. Would you say that it would be accurate to state that in the case of better than three-quarters of the patents under which you obtained certain exclusive rights from Behr-Manning you never did grant any rights to anyone else in the trade?

A. I would think that would probably be true. I don't

know. I don't know all the patents that we gained rights from on there. I don't think we ever examined them.

1147 Q. You didn't care?

A. I didn't care.

Q. But it is a fact that even to this day, Behr-Manning has not, as far as you know, entered the field of liquid particle electrostatic spray coating?

A. That is right.

Q. And even as of this date, your company has not entered into the field of fibrous or solid particle coating, let's say?

A. That is right.

Q. As distinguished from liquid particle, is that right?

A. Yes.

Now, I think they may use electrostatic application in the coating of some of their adhesives.

Q. But that is adhesive particles, isn't it?

A. No, adhesive liquids, liquid adhesives for the abrasive particles to adhere to.

Q. It is not a coating though?

A. Yes, it would be a coating, but it is not a coating in the sense of painting an object.

Q. Did you ever have any patents on that subject?

A. In the way of applying liquids, liquid adhesives?

Q. Yes.

1148 A. Oh, yes, and that I think is what they were mainly interested in.

Q. And you gave them the rights under those?

A. Yes.

Q. To the exclusion of all others?

A. Yes.

Q. Now you understand, I believe it was in December of 1956, that your company filed a counterclaim in this cause, you understand that to be a fact?

A. I know that there were some counterclaims filed, yes.

Q. Do you recall just prior to that litigation the start of that counterclaim, namely along about October that you had some correspondence relative to the Ajax Hardware Manufacturing Corporation?

A. I remember that name. Is that on the West Coast?

Q. Los Angeles, yes.

A. Yes.

Mr. Meroni: I have two papers that I would like to have the Court Reporter mark for purposes of identification:

One of them is dated October 17th, 1956 and the other is dated October 29th, 1956, as Plaintiff's Exhibits XXXXX and YYYYY.

1149 (The plaintiff, for purposes of identification, handed the Reporter certain documents for marking, and which were by said Reporter marked Plaintiff's Exhibit XXXXX and Exhibit YYYYY.)

Q. (By Mr. Meroni.) You recall testifying in response to some queries by Mr. Hume or rather Mr. Gilliom as to the matter of guaranteeing satisfaction?

A. Yes.

Q. I hand you these two papers that have just been identified as XXXXX and YYYYY and ask you if you can identify them, these being copies furnished to us by your counsel?

A. Yes, this is a letter from Herm Miller to Dr. Emery Miller on October 17th, 1956, regarding Ajax Hardware and makes reference to a stipulation they put on the bottom of the agreement relating to a guarantee of satisfaction which Herm Miller explained that he understood we could not accept.

Q. Was that letter referred to you for answering?

A. No, I believe not.

Q. Did you answer it?

A. Yes, I see my name on the bottom of it; I didn't realize I had, but I was familiar with it.

Q. And you agreed with him?

A. No, this other letter stipulates what the word-
1150 ing of the guarantee was that we would give them, which in effect says that we will give them the same quality of finish achieved at American Cabinet Hardware, but wouldn't give them a blanket guarantee of satisfaction without any qualifications.

Q. So that as of that date, you were not giving any of your licensees a blanket guarantee of satisfaction without any qualifications?

A. We had done—

Q. What is that?

A. We had done—it wasn't a standard procedure for us to do it with every agreement, no.

Q. In the majority of agreements you did not do it, isn't that a fact?

A. That is true.

The Court: Are you offering these?

Mr. Meroni: Yes, I offer those two documents in evidence on behalf of the party plaintiffs as XXXXX and YYYYY.

(Plaintiff's Exhibit No. XXXXX and Exhibit No. YYYYY was offered in evidence by Mr. Meroni.)

1151 Mr. Gilliom: No objection.

The Court: XXXXX and YYYYY are admitted and read into evidence.

(PLAINTIFF'S EXHIBIT NOS. XXXXX and YYYYY were admitted and read into the evidence, and made a part of the record in this case, said exhibits being in the words and figures following, to-wit:)

(Here Insert.)

1152 Q. (By Mr. Meroni.) Now you testified in considerable length about the licensing and leasing of No. 2 Units and I believe you agreed this morning that you had never licensed or leased any units with applicator heads in this, in Exhibit 9, do you recall that?

A. Yes.

Q. Now have any of the No. 2 leases or licenses that you were testifying about in response to queries by counsel embodied applicators like Exhibit CCCC or Exhibit DDDD?

A. I believe not.

Q. Is it accurate to state that with the exception of the installation at the Enamel Sign Company in Chicago that all of the installations that you have made of the No. 2 Processes involved either a rotating bell or a disk?

A. Yes, I believe that is correct.

Q. Now I understood from your testimony on direct examination that it was always your policy to hold yourself available to grant licenses without furnishing equipment, is that understanding correct? Is that what you meant to say?

A. Yes.

Q. Why then was it necessary in 1953 for your company to go to the expense and trouble of circularizing the
1153 entire trade with form letters as to the availability of a license without equipment?

A. I don't believe it was necessary.

Q. Why did you do it? Was it on advice of counsel?

A. Yes.

At least, I didn't hear the advice of counsel, but it was on the urgence of Ed.

The Court: By "Ed" you mean your brother?

The Witness: Edwin Ransburg, yes.

Q. Also, why was it necessary to issue special bulletins to your distributors in 1953 telling them that if any customer wanted a license alone that the customer could have

it if it returned the equipment, if it was known that licenses alone were available?

A. Well, I think in that case—I think in that case there was some necessity for keeping that thought before the salesmen, and I was highly in favor of an occasional bulletin on the subject to all of our salesmen which was started in '47, and I believe approximately once a year continued doing that and still offered to state that so that they
1154 would be constantly reminded of it. I think that the necessity or the reason we were anxious to make sure that they were reminded of it at fairly frequent intervals was so that, in the desire of getting business and in their practice of realizing that nobody wanted our license without equipment, that they wouldn't overlook and forget that that was available if anyone should want it.

1155 The Court: Do you have a change in personnel from year to year?

The Witness: We do have some occasionally but I think even men who have been with us, even though they have been with us for some time, if over a period of several years no one had ever asked for a license without equipment, they might easily forget they had been given such advice; so, about once a year we put out the bulletin with my hearty approval so they could not forget that it was available and it would include any person that would come into the organization and might have overlooked that particular fact.

Q. (By Mr. Meroni.) Now, when I refer to these form letters I was referring to these forms such as letter E, F, G and H appearing as a part of this Exhibit 26. Did you understand that I was referring to such forms when I presented the question to you?

A. This last question?

Q. The one having to do with the form letters that were circularized to your customers in 1953.

A. Yes, I believe that these are reproductions of those form letter paragraphs.

Q. You apparently sent such a form letter to
1156 Webcor and they characterized it as ridiculous?

A. That is my understanding, yes.

Q. Did you ever have anybody take advantage of that offer?

A. No.

Q. If they had taken advantage of it, they would have had to forfeit all of their initial expenditure for the equipment, would they not?

A. We don't term that they have any expenditure for equipment in the initial fee.

Q. Isn't it a fact that you receive initial fees varying from five to $40,000 for an installation?

A. Yes.

Q. Now, supposing a customer had paid you $40,000 for an installation, and if it wanted to return the equipment and just pay you a monthly fee or royalty, they would not get any of that $40,000 back, would they—cash?

A. No, there would have been some forfeiture there, that is correct.

Q. The only benefit they would have had would have been a lowering in the monthly fee?

A. Yes.

Q. For example, in Form E here, I might read this one as being an example: "We wish to inquire whether
1157 you would like to convert the subject electrostatic spray licenses to licenses under which we would furnish you no equipment and under which we would assume no obligation for replacement parts, supervision or service, or patent infringement indemnification. If you should elect to assume responsibility for these items for yourself and return our equipment, your basic minimum monthly fee of $100 for each unit would be reduced to" —I believe that is $80.

A. That would be $80.

Q. "—for each unit, and your initial fee under number" —that would be the contract— "would be reduced from $2,600 to $800." Is that correct?

A. Yes.

Q. That would be true only where they were approaching you for a new installation. If they already had an installation they would not get the money back, is that right?

A. Frankly, I'm not sure. That is five years ago. I don't know if we intended giving back some of their money or not.

Q. But in any event, if they had elected to take advantage of it, the offer you were making to them, they would not only have lost their investment but also would have lost your service for replacement of parts, super-
1158 vision and service, your patent infringement indemnification? They would have lost all those things, wouldn't they?

A. Yes.

The Court: May I interrupt you for another five minute recess? I have Counsel from out of the city.

(Whereupon, there was a short recess.)

1159 After Recess.

Cross-Examination (continued) by Mr. Meront.

Q. A moment ago we were referring to Webster or Webcor. I would like to hand the witness Exhibit LLL-1, 2, 3, and 4 and ask him if he can identify that as the correspondence relating to this Webcor situation?

A. Yes, I believe it is.

Q. The first letter or paper, LLL-1, which comprises two pages, is a typical letter making an offer to them in

which the initial fee is spelled out alternatively as being either $8,400 or $10,400, depending upon what the customer took, is that right?

A. Right.

Q. And Webcor apparently took a license, or did it not?

A. I know they have been a customer of ours. I don't know whether they took a license under this transaction right here. I believe they did.

Q. That was for the No. 2 System?

A. Yes.

Q. Now, in this next letter, LLL-2, it is one of these typical form letters that you sent out to your customers telling them about the fact that they could convert to 1160 a license alone, if they wanted to by returning the equipment?

A. Yes.

Q. And then in response to that form letter, you received a letter from Webster Chicago Corporation which is Webcor which is marked LLL-3, is that correct, sir, indicating interest?

A. Yes.

Q. And apparently you had your sales representative, Mr. Pleva, call on Webcor, isn't that right?

A. Yes.

Q. And LLL-4 is the report he rendered to you after the call, is that so?

A. Yes.

Q. This is the letter that referred to the ridiculous proposition we talked about before, that I mentioned to you?

A. Yes.

Q. Now, in this letter, LLL-4, I notice this statement: "I explained to him that we have always offered our process either with or without equipment, but our records indicated that certain customers had not been advised of

this, and we were simply trying to give everyone the same opportunity to select whichever proposition they preferred." Now, how did your records indicate that, or
1161 is that just a figure of speech?

A. Well, our records certainly indicated that we had no written notification to all customers of this possibility.

Q. Prior to these form letters you sent out in the summer of 1953, you didn't send them out any letters to tell them they could alternatively have either a license with or without equipment, did you?

A. Not all of our customers, no.

Q. Now, I hand you what purports to be a pricing guide for your No. 2 System dated July 15, 1953, marked JJJ-2. Is this the first pricing guide that you sent out in connection with the No. 2 spray process wherein you spelled out to your distributors the difference in fees where equipment was supplied and where equipment was not to be supplied?

A. I recall that there was one earlier than July of 1953.

Q. We haven't seen any here. You say there was one earlier than that where you divided it in that fashion?

A. Not in that fashion because the earlier one, as I recall, related to the detearing process, and the No. 1 process.

Q. This is limited to the No. 2 process? As far as the No. 2 process, I believe this is the first bulletin you sent out? Am I correct in that?

A. I believe that is correct.

1162 Q. Now, in this typical example here, if the customer wanted equipment he would pay an initial fee of $10,000 and a basic monthly fee of $200, monthly fee, 25 per cent of the cost of coating material used, is that correct, in that typical example?

A. Yes, in the case of our supplying the equipment.

Q. Now in that same example where you didn't supply

the equipment, the customer would still have to pay a basic initial fee of $4,000 for the license, and a basic monthly fee of $140, is that correct?

A. That is correct.

Q. Now, the customer, if he elected to not take your equipment, he would lose the benefit of any indemnification, as I understand it?

A. We didn't give patent infringement indemnification.

Q. And they wouldn't get any replacement parts?

A. We didn't give it to them if they took—we didn't give patent infringement indemnification in any case.

Q. Didn't I see some letter this morning where you said something about them losing that?

A. That probably related to the No. 1 process rather than the No. 2 process, and we are now talking about the No. 2 process.

1163 Q. Was your procedure different on the No. 2?

A. Yes. On the No. 1 process we gave patent infringement indemnification up to the amount of fees paid. For the No. 2 we gave no patent infringement indemnification.

Q. On your No. 2 process were you supplied the equipment, you furnished services and maintenance and replacement of the parts?

A. Yes.

Q. And if someone doesn't take the equipment, they lose the benefit of all of that, don't they?

A. That is right.

Q. Now, take this typical example: The customer would apparently in this particular example pay $4,000 regardless of the number of patents that might be applicable, isn't that correct?

A. I presume that is true.

Q. Well, you would have no way of knowing what patents were applicable if you were merely giving a cus-

tomer a license and you didn't know in advance what equipment he was going to use?

A. That is correct, and the sales force never knows what patent is applicable unless specifically asked for.

Q. If you did grant such license for $4,000 the customer would have a license under all of your patents?

1164 A. Well, —

Mr. Gilliom: (interposing) May we move the partial answer be stricken for the purpose of making an objection?

The Court: It will go out for the purpose of the objection.

Mr. Gilliom: The defendant objects on the ground that the question calls for a legal interpretation of the effect of granting a license of a certain type and this witness has not qualified himself to testify as to the legal effect of transactions between parties.

The Court: Read the question, please.

(The last preceding question was read by the Reporter.)

1165 Mr. Meroni: Well, I think he answered that and there was another question if I remember right, your Honor. I think there was another one. I may be mistaken.

Mr. Gilliom: That was a question to which the objection was directed.

Mr. Meroni: Was there a question after that?

The Reporter: No, that was the last question.

The Court: Then the objection was that the question calls for a legal conclusion on the part of the witness?

Mr. Gilliom: Yes, that is correct.

The Court: Your question is directed to policy of the company generally?

Mr. Meroni: That is right, your Honor.

The Court: On all of its licenses issued for $4,000 on the basis of price guide JJJ-2?

Mr. Meroni: That is right.

The Court: The objection will be overruled if it is limited to this exhibit.

A. My understanding is that they would be li-
1166 censed under any patent that would be applicable to their operation.

Q. (By Mr. Meroni.) In other words, as I understand this situation, your salesmen were authorized by this letter to go to a customer and say, if you want a license under our patent for some No. 2 System, even though you may not have it developed yet, we will give you that license for $4,000 plus a monthly fee of $140.00?

A. Yes.

Q. As a matter of fact, you didn't school your salesmen in how to apply patents to devices, did you?

A. Certainly not.

Q. And they wouldn't know what patents were applicable, would they?

A. No.

Q. I now hand you what purports to be another letter NNN Plaintiff's Exhibit NNN to Westinghouse written by one Harold Ransburg, and if you can identify that letter, I will ask you if you can identify that letter as being one that you wrote?

A. Well, it certainly went out over my signature. I can't from my own memory recall whether I dictated this letter. I think that was probably prepared, at least in part, for me by our legal counsel.

1167 Q. No question but what you sent it out though?

A. That is correct.

Q. You don't remember the incident, do you?

A. I vaguely do; I don't remember the particulars. I remember that we had some trouble with their attorney in

Pittsburgh over some of the phraseology or wording or the terms of the agreement.

Q. Well, he didn't like the provision about licensing back the inventions, wasn't that it?

A. No, I think before this time we had omitted any future inventions clauses, is that what you mean?

Q. Yes.

A. No, that had been deleted from the agreement prior to this time, I feel confident.

Q. Prior to 1955?

A. I think so, if my memory serves me rightly.

Q. Well, your difficulty, I take it then with Westinghouse had to do with whether or not that company would acknowledge the validity of your patents?

A. That would be indicated from that letter, yes.

Q. Wasn't there some problem because the patents weren't spelled out and they didn't know what were applicable?

1168 A. I don't recall that detail, no.

Q. You don't have any recollection on that?

A. No, I do not. As a matter of fact, I doubt if that is the case, because I don't remember anyone asking us to spell out which patents were applicable. If there were a case or two, I don't recall it. I don't think that was involved in the Westinghouse situation. I just think they wanted to absolve themselves from any recognition of the validity of our patents.

Q. You say here, "It is our policy not to agree that a licensee con contest the validity of our patents."

I would take it from that that they would be, they wanted to be able to contest the validity of your patents?

A. That sounds like it, but I don't think that they would license under any particular patent.

Q. You say you have no recollection of a customer wanting to know what patents were applicable, is that correct, or what did you say in that respect?

A. I don't believe, I don't personally recall any customers who have asked for which of our patents applied to their operation. If it has happened, it has been—

Q. Well, I would like to refresh your recollection.

1169 You wrote this letter to Avco which is Exhibit XXXX, did you not, and which is part of their agreement No. 5228?

A. Since it relates to a discussion between their Mr. Redfield and Mr. Cutter and our Mr. Downer, I doubt very much if I wrote it. It did go out over my signature.

Q. Well, you were responsible for it?

A. That is correct.

Q. No question about that letter having been sent?

A. No, I wouldn't question that.

Q. And that concerns a No. 2 airless system?

A. You know whether this applies to their Richmond or their national operation?

Q. I can tell you from this document here.

A. No, this relates to the No. 2 Process.

Q. It does?

A. Yes, I can tell from the drawing number.

1170 Q. I believe the forms that you furnished us here indicate that it is, too?

A. Yes.

Q. That is a division of Crosley, isn't it?

A. Crosley is a division of Avco.

Q. And it does relate to the Number 2 System?

A. Yes.

Q. Now, are you—In that case Avco asked for a list of the patents that were applicable, and you sent that list, and it is attached to the letter, is it not?

A. Yes.

Q. Are you aware of the fact . . .

A. (Interposing.) I don't know if they asked if they were applicable. I do recall there was an inadvertence in something to do with Avco that was later corrected.

Q. 'I don't know of any correction on it. But I would like to ask you another question on it.

A. Is this a list of the purported, patents we purported to be to their operation?

Q. That is what your counsel furnished us, the only list furnished us.

A. All right.

Q. Now, according to this letter it constitutes a part and a revision of an agreement, No. 5228; doesn't it?

1171 A. Yes.

Q. Under it they say: "Whereas, Ransburg is the Owner of the United States Letters patent and patent applications set forth in attached Exhibit A, and has the right to grant licenses under the United States Letters patent and patent applications set forth in attached Exhibit B * * *"

These are the two exhibits containing the list of the patents; one contains the patents owned by you, and one contains the patents under which you have rights. Do you recollect that?

A. I don't recall that. It is, no doubt; was negotiated by Mr. Downer.

Q. He is your legal counsel, house attorney, I believe.

A. Yes.

Q. Now, were you aware of the fact that this list included—most of the patents in this list were on the Number 1 System and had nothing to do with the Number 2 System?

A. No. I think like many other things, Mr. Meroni, he might have phoned me and said his secretary was going to bring up a paper for me to sign, that had to do with Avco we were trying to sell, and was down there for a meeting, and I probably signed it without reading it.

Q. There was not any intention to overwhelm it with a large list of patents, was there?

1172 A. No. My part, I don't think I knew in detail what it was all about.

Q. Were you aware of the fact that there was not a single patent in that list that was applicable to the airless installation involved?

A. I was not aware I had signed that letter until you showed it to me. I had • • •

Q. (Interposing.) Were you aware of the fact that one of the patents had to do with the manufacture of carbon paper?

A. No. I wouldn't recognize any of the patent numbers, if I saw them.

Q. You • • •

A. (Interposing.) I believe that that is the inadvertence that has been corrected.

Q. If there has been a correction of it, I have not been apprised of it. I have not seen any paper correcting this. Do you know of any paper correcting it?

A. I believe when we found we had made that error, they were written, and I think a list was made up as to all the patents we own, whereas the contents of the letter or inquiry applied to the patents applying to them, or the wrong ones were used, or the right ones were not pulled out.

1173 Q. Were you aware of the fact that as of January 18, 1954, that the Starkey Patent in suit hadn't issued? You were aware of that fact, were you not?

A. 1954?

Q. Yes, January, 1954. Here's the chart. It shows it issued August 3, '54.

A. All right, I thought • • •

Q. (Interposing.) Were you aware of the fact at that time you did not have a single patent on airless atomization that was applicable to the installation that was involved in this agreement of Plaintiff's Exhibit XXXX? Were you aware of that fact?

A. What is the date of that letter?

Q. January 18, 1954.

A. Yes, I am aware of that.

1178 Q. Mr. Ransburg, in the course of these proceedings, the defendant has answered Interrogatory 4(a) which reads as follows: "Has the defendant ever granted a patent license relating to airless electrostatic spraying as to which it did not enter into a lease agreement with the license?" And the answer was "To date all agreements by which defendant has licensed the use of its airless electrostatic spray coating process contained a provision requiring defendant to furnish to the licensee some but not all of the equipment for using the process."

Have the sales bulletins that you have issued from time to time to your sales personnel and distributors been consistent with the answer there given?

A. I believe so. I don't think the sales bulletin that we ever issued told the salesman that every license that we consummated required us to supply the equipment. I don't think that is what you meant, though, was it?

1179 Q. No, but has your practice been consistent with the answer there expressed that I quoted?

A. Yes.

Q. Now, in answer to Interrogatory No. 3, which is as follows, and I will quote the statement made:

"(a) How many licenses have been granted by defendant on electrostatic spraying, and

"(b) How many of those licenses are still in force and effect?"

And the answer was:

"(A) Seven hundred and thirty-two up to the date of the filing of the complaint." And "Four hundred and sixty-four up to the date of the filing of the complaint."

Have all of those licenses been issued under your jurisdiction?

A. You mean with my knowledge of the details of it?

Q. Have you been in charge, during the entire time of the issuance of these 732 licenses of sales?

A. Yes.

Q. And from the standpoint of the echelon of your company, have all of those licenses been issued under your jurisdiction?

A. I am a little concerned about your terminology
1180 of jurisdiction. If I were gone from the company for six weeks, I am sure licenses were given without my being involved in it.

Q. Let's put it this way: Except for your absence, you were primarily responsible for the issuance of those licenses and leases in the company? That was the phase that was delegated to you, is that right?

A. Yes.

Q. Now, as distinguished from your duties, what did your brother Edwin do?

A. He had charge of all of the research and development and legal aspects of the business.

Q. I want to read to you an admission and ask you a question about it.

No. 7—"The defendant has issued in excess of 300 licenses in the field of airless electrostatic spray coating and in each instance the license provided for the defendant leasing equipment under each such license." And the answer was "Admitted."

Now, I believe you said in that connection that while you granted the first airless license around 1948 that that was an experimental license and that you really got seriously into the matter of this airless type licensing
1181 in 1951, wasn't it?

A. That is when we first publicly announced it, yes.

Q. So that these 300 licenses that are referred to would have been licenses that really commenced around 1951, is that right?

A. Yes, I think we may have had 10 or 12 experimental units out prior to that.

Q. Now, I want to read another admission and ask you a question concerning it with regard to your practice. It is Admission No. 71—"Does the defendant admit that in granting its licenses in the airless electrostatic coating field?

"A.—It has not only granted licenses under its letters patent in suit but also joined with such licenses, leases for equipment furnished by the defendant."

And the answer was "Yes." Would you say that was your general practice in those 300 licenses?

A. Would you reread the last part of that?

The Court: Read the question, please?

(The preceding question was read by the Reporter.)

A. I presume so although we never distinguished 1182 what part was a lease and what part was a license and we normally don't call it a lease in sales work.

Q. You don't dispute that you were leasing equipment, do you?

A. No, I don't dispute that.

Q. Now, continuing with that admission—

"B—Has at all times maintained title to all equipment that is furnished its licensees under its agreement with them." And the answer is "Yes." Is that generally true as to all 300 of those licenses?

A. Yes.

Q. "C—In no case prior to the filing of this suit has it ever actually granted a license without the license being accompanied by a lease of equipmen and the answer was

"Yes." Is that always generally true of all 300 of those licenses?

A. I am not sure, of my own knowledge. I know we do have several No. 1 Process licenses without equipment and I don't know when the first one was effected.

Q. This refers to matters transpiring before the suit was filed, this 300. Now, there was one exception in the settlement of the Hilgren suit, you said.

1183 A. That is true.

Q. And you understand this was limited to the airless matter?

A. Oh, on the airless, I think that would be correct.

Q. That Hilgren installation was an air type, wasn't it?

A. That is correct.

Q. So that I will read this again:

"C—In no case prior to the filing of this suit has it ever actually granted a license without the license being accompanied by a lease of equipment" and the answer was "Yes." Now, assuming that that was limited as stated in the preamble of this admission to the airless electrocoating field, that would be true as to all of them?

A. That is correct.

Q. I would like to read to you Interrogatory No. 10 and the answer and then ask you a question.

"What part of the defendant's cost of each piece of leased equipment is recovered by the defendant at the time of its granting of a lease and a license under its patents" and the answer was "All of it." Was that true without exception?

1184 A. That relates to cost of equipment?

Q. Yes.

A. That would be correct.

Q. Well then yesterday when you said you lost money initially when you commenced your operation, you in every

instant didn't recover all of your money in the initial fees from licenses, but you didn't lose money on any of the licenses?

A. Initially we do.

Q. Then I can't reconcile this answer with that statement because it says here, and I will read it again, "What part of defendant's cost of each piece of leased equipment is recovered by the defendant at the time of its granting a lease and a license under its patents" and your answer was "All of it."

A. I think I could explain that to you.

Q. Do so.

A. Well, I think that the misunderstanding comes about from your lack of appreciation of what is involved in our type of business. Our greatest expense is by far our engineering of these jobs and the sales engineering and laboratory engineering and the development engi-
1185 neering far exceed, and the installation supervision, those expenses far exceed the cost of the equipment. The cost of the equipment we have always considered as more or less a necessary evil or incidental to our operation. I could give you some idea of the negative of that by mentioning the square footage of area involved in the manufacturing of the equipment. For instance, the company occupies two buildings, one of 65,000 square feet and another one of 80,000 square feet of which on the automatic equipment not more than oh, two or three thousand square feet is devoted to assembling and testing and improving the actual equipment we ship, so the cost of the equipment is a very small part of what we supply to the customer in the way of our expenses, and when you go rate all of our expenses against the initial fees we collect, our expenses far exceed the initial fees we collect, so if you supply that to an average condition we have made some studies to indicate it takes us two or three years to turn it in to a

profitable picture considering the development and engineering work and installation work that we do in connection with an installation.

Q. Well, you are doing a lot of development work
1186 in anticipation of future activities, aren't you?

A. Oh, yes.

Q. So that not all of it is charged to current activities?

A. That could be said.

Q. In other words, you are trying to develop additional improvements to expand your business, are you not?

A. Yes.

Q. Now, you don't mean to convey the impression that if you charge a fee of $5,000 to $40,000 initially for the license and lease that there isn't some part of that that is attributable to engineering research, do you?

A. Some part of it should be attributable to it. We haven't tried to break it down on a specific installation.

1187 Q. Now according to the answer to Interrogatory 40 prior to the issuance of the Starkey patent on August 3, 1954, that is the Starkey patent here in suit, your company had issued 171 airless electrostatic spray coating licenses and leases. Does that fit in with your recollection?

A. I wouldn't be surprised that that would be a correct figure, yes.

Q. Would it be accurate to say that prior to the issuance of the Starkey, et al. patent you had no patent applicable to the airless spraying?

A. I believe that there may have been one or two issued prior to the Starkey patent, but I am not sure.

Q. I want to now read to you Interrogatory 52 and its answer and then ask you a question about it:

"Q. Has defendant ever submitted a license under its

Starkey patent alone without an accompanying proposed agreement for furnishing of equipment by the defendant?"

And the answer was:

"A. Defendant has never submitted any license limited to the Starkey patent alone."

Would that be true of all of the airless electrostatic
1188 coating licenses and leases that your company has issued?

A. I believe that we have never submitted a license under any specific single patent.

Q. Well, as a matter of fact, did you bother in your department to keep any record of what patents were applicable to each of the licenses as you granted them?

A. No, we did not.

Q. Did anybody keep any such record?

A. Not to my knowledge.

Q. I would like to read you Admission No. 84 and the answer and then ask you a question, sir:

"84-A. Beginning around March 21, 1949 and for several years thereafter, defendant leased and licensed its No. 2 airless electrostatic coating systems without having issued to it any letters patent affording the defendant exclusive patent rights to airless electrostatic spray coating." And the answer was admitted.

As far as you know, was that true of most of those 171 licenses that we referred to a moment ago?

A. Yes.

Q. Now I would like to read to you another admission and ask you a question about it.

1189 "57. Does defendant admit that in its licensing program on electrostatic spraying systems it has for the most part used printed forms of licenses which do not single out any particular patents by numbers, of those in the portfolio of the defendant?" And the answer was yes.

Is that true of practically all your licenses?

A. Yes.

Q. In other words, you never did incorporate in the printed forms any patent numbers as far as you know?

A. I believe that is correct.

Q. Wouldn't you say the vast majority of the licenses you have granted have been printed?

A. Yes.

Q. Now I would like to read to you two other interrogatories and ask you some questions about them, 160 and 161. First we will take 160:

"A. Did the defendant or its predecessor ever receive in writing any notices of patent infringement from Behr-Manning?" The answer was "No."

Do you know of any document or written notice of infringement from Behr-Manning?

1190 A. No, I don't believe there was any.

Q. As a matter of fact, did they ever specifically charge your company with infringement of any patent?

A. No.

Q. Now in connection with Interrogatory 161:

A. Did the defendant or its predecessor ever notify in writing Behr-Manning of its infringement of any of defendant's patents?" And the answer was "No."

Do you know of any document where you notified Behr-Maning of infringement of any Ransburg patents?

A. No, I do not.

Q. As a matter of fact, did you at any time advise them in any way that Behr-Manning was infringing on any of your patents?

A. No.

Q. By the way, were you ever advised or your company advised in any way that some of the patents under which you were licensed by Behr-Manning were involved in the suit in Boston?

A. Not to my knowledge.

Q. You never received any communications from Behr-Manning or any representatives of Behr-Manning
1191 of the existence of such a suit or the judgment or anything connected with it?

A. I frankly don't recall it.

Q. Well, who would know about that if there was such a thing?

A. If we were formally and officially advised, our counsel would know. Of course, Ed might know.

Q. Well, ordinarily if letters come into the company of that order from Behr-Manning, who do they go to first?

A. It would depend upon who it was from. I think it would probably go to Ed Ransburg if they were of the nature that you are describing.

Q. But as far as you know, you never recall hearing about such letters or communications and none came to your attention?

A. I don't say that none came to my attention. If they did, it was of some little consequence to me or to us.

Q. Do you recall if you had the licenses with Behr-Manning or executed them, having any correspondence with them at all?

A. I think we have received some correspondence, yes.

Q. Well, you had some in connection with that patent under which Behr-Manning inadvertently gave you rights and you had to go to Research Corporation to get the rights?

A. Yes, I am sure we had some correspondence on that.

Q. Now since that, have you had any other correspondence with them that you know of?

1192 A. I presume we have had some.

Q. Well, you wouldn't be prepared, then, to state under oath that your company was not advised of the existence of that Boston litigation and of the judgment entered therein?

A. I could not say that we were not advised. As a matter of fact, I would gamble that we were, because our attorneys tried to watch those things closely, I mean, those are all publicized, are they not?

Q. Yes.

A. I think we probably knew about it.

Q. You have several house attorneys, do you not?

A. Two.

Q. Part of their duties is to watch for such things?

A. That is right.

Q. Now I notice most of your licenses have a termination provision of three to five years. I believe most of them are three years, which you can terminate for any reason. Are you acquainted with that?

A. Yes.

Q. Whose idea was it to incorporate such a termination in the licenses?

Mr. Gilliom: If the Court please, I think the defendant will object to the question on the ground that the mat-
1193 ter of whose idea originated a certain provision in written contracts, would speak for themselves and would not be relevant to any issue.

Mr. Meroni: In anti-trust actions, Your Honor, I think it is pertinent to show the circumstances if there were any.

The Court: Well, if it is a disclosure of witness, that is one thing. I will overrule the objection and you may answer that, if you know.

A. Well, I think that, in general, I can say that it was Ed's idea to make it three years, and my idea to make it five years.

Q. Why did you want to be in a position to terminate any of these licenses without cause?

A. Well, it was a gradually growing thing, I think, that originally we admitted and knew that we didn't know what we were doing in marketing these processes. We didn't

know whether our charges were right; we didn't know what legal hazards we might be effecting, we had rather serious fright, I believe it was in 1944, when we found that the Smyser patent reissued some five or six months before we were aware of it—six or eight months, and during that time we were giving full indemnification. It was just
1194 largely a matter of being conservative and giving ourselves some latitude to be fair and reasonable later, if terms should change. It did give us the option of making everyone in a given field conform to the same terms if we deemed it the fairest way to do the job.

Q. Well, even after the patent expired and others started to come on the market with the air type electrostatic systems, did you make any effort to take that provision out of your No. 1 contracts?

A. I think to some extent it was habit by then, and industry had accepted it as being fair and reasonable, and we have never taken advantage of it. I think industry has wholly become less apprehensive about a short term.
1195 Q. In other words, you have got the industry accustomed to your way of doing business?

A. I think they are.

Q. And that momentum carried on to airless picture when you first started and had no patent protection, isn't that right?

A. I imagine that momentum had its influence on our thinking, yes.

Q. Now, when you came out with your printed forms on the No. 2 or airless type systems, you commenced inserting in them a paragraph 11, having to do with future inventions by the licensee. Do you remember that?

A. Yes.

Q. What occasioned that to change in your practice?

A. We knew that we had a development that was very basic and broad and had some large future implications and

we knew that there were possibilities that anyone in using it might develop some minor improvement that would be useful to all other customers and all future customers, and we wanted to make it, the arrangement, so we would have those advantages and our other customers would have those advantages without any penalty to ourself; and we chose to take whatever sales resistance there might be in
1196 offering it with that term in return for the free ability to extend any such minor developments to everyone as they came along.

Q. Well, initially when you came out with your No. 2 system you had no patent protection on it and were you anxious by this provision to get some protection from others, if you could?

A. I think before 1949 we probably had some claim granted, if that is what you mean.

Q. I mean issued patents, you had no issued patents.

A. No.

Q. As a matter of fact in all of these hundreds of licenses that you granted under the No. 2 system, has a single licensee actually ever made any improvement that they turned over to you?

A. As a matter of fact, a normal licensee has never to my knowledge.

Q. There was not any incentive for them to do it, was there?

A. Only to improve their own operation.

Q. But they would have to give you free rights so you could license their competition, wouldn't they?

A. That is correct.

Q. Now, I hand you what purports to be a sales
1197 bulletin No. 132, Binks Exhibit III-1, and ask you if you issued that bulletin, to your sales personnel.

A. Yes, I did.

Q. This bulletin concerns itself with reciprocators, does it not?

A. Yes, in part.

Q. Just so the Court will know what we are talking about when we talk about reciprocators, let's refer to this Chart 17-B. The reciprocator would be the mechanism by which the atomizing head is moved up and down, is that correct?

A. Right.

Q. You didn't manufacture reciprocators, did you?

A. We made the first eight or twelve.

Q. But for the most part those that have been used by your licensees have been furnished elsewhere?

A. At our direction and instruction we preferred not to manufacture them, yes.

Q. Now, let's assume a licensee purchased a reciprocator some place else and was going to use that with your installation. According to this bulletin if the reciprocator was 36 inches or less the licensee had to pay you a fee of $500; if it was between 36 inches and 60 inches the
1198 licensee had to pay a fee of a thousand dollars; and if it was above 60 inches the licensee had to pay you a fee of $1,500, is that correct?

A. Yes, that is correct.

Q. Wasn't that sort of a penalty because the licensee was using a reciprocator rather than buying additional units from you?

A. I think the evidence will show by our performance of it there was no penalty at all.

Q. Well, actually, you had, you would have been better off if the customer, I suppose had bought many units from you?

A. You mean if we had a choice between their buying two units instead of one unit?

Q. Yes.

A. We have never tried to get them to put in more equipment than what was required for the job.

Q. But be it as it may, the fact remains in the majority of the cases where your licensees have used reciprocators, the licensees have had to pay an increase in the initial fee?

A. Increase over what?

Q. Over what they would have paid without the
1199 reciprocator.

A. I am sorry. If you limit that question to this, I will say that is correct.

Q. That is because you don't use a reciprocator with a rotary bell, is that right?

A. We do in some cases.

Q. Explain that to the Court.

A. Well, if your question deals only with the disk, then you are correct, they pay more for reciprocating disks than a stationary disk in the initial fee. There in the triple heads, which often have, very often have one reciprocating disk which would replace several triples heads, depending upon the circumstances, and in that case the customer would pay much less for one reciprocating disk than the several triple heads that could be used to replace it.

Q. But if you compared it with a customer using only a disk and one using a disk with a reciprocator, the one using it with a reciprocator would pay more than the one just using the disk alone?

A. That is correct.

Q. And those amounts or fees are spelled out in your bulletins to your salesmen?

A. Yes.

Q. Now, these bulletins' instructions that you issue
1200 from time to time were widely circulated among your salesmen?

A. Among our salesmen, yes.

Q. It was for their personal use, though?

A. Yes, it wasn't for their reproduction and redistribution to customers, if that is what you mean.

* * * * *

PLAINTIFF'S EXHIBIT KKKK.

1 EDWIN M. RANSBURG, being first duly sworn to testify the truth, the whole truth and nothing but the truth relating to said case, deposes and says:

Direct Examination.

Questions by Mr. Charles Meroni.

Q. 1. Please state your name.

A. E. M. Ransburg.

Q. 2. And the "E" stands for what?

A. For Edwin.

Q. 3. Where do you reside, Mr. Ransburg?

A. Indianapolis.

Q. 4. How old are you, sir?

A. Forty-three.

Q. 5. By whom are you employed presently?

A. Ransburg Electro-Coating Corporation.

Q. 6. In what capacity?

A. Vice-President.

Q. 7. As Vice-President you have any particular duties assigned to you?

A. Yes, I administer the Engineering Department.

* * * * * *

10 Q. 65. Will you tell us what the differences are between No. 1 and No. 2?

A. Well, we think of No. 1 as a compressed air spray gun introducing the paint into an electrostatic field and directed at an acute angle or substantially parallel to the path of the conveyor and the No. 2 is eliminating that compressed air spray gun.

Q. 66. The No. 2 system is an electrostatic system?

A. Yes.

Q. 67. Would you say that the No. 2 system is distin-

guishable broadly from the 1, in that it effects atomization, effects dispersion and depositing solely by electrostatic means, whereas the No. 1 uses in addition the compressed air spray gun?

A. I would say the air gun does the atomizing and
11 sprays at an acute angle to the conveyor.

Q. 68. In the No. 1 system?

A. Yes, No. 1, and the No. 2 does not use the compressed air system.

Q. 69. What does the electrostatic field in the No. 1 system do, if anything?

A. After the particles are atomized, it deposits some of the paint on the articles.

Q. 70. Would you say that it is a positive fact that in the No. 1 system no atomization is effected by the electrostatic field?

A. It is not effected, to my knowledge.

Q. 71. Have you eevr made any tests to determine whether or not the electrostatic field in the No. 1 system effected any atomization?

A. I haven't.

Q. 72. Has anyone in the Company made any such tests?

A. Not that I know of.

Q. 73. What is the voltage that you use in the No. 1 system, as licensed by your Company?

A. You mean how high voltage?

Q. 74. Can you give us the range of voltage that has been used?

12 A. I believe it has been referred to in the interrogatories. I believe that would be more accurate.

Q. 75. I don't believe there was any answer in the interrogatory on the No. 1 system.

A. We generally think of the order of 100,000 volts. However, I am not sure if it will measure that high.

Q. 76. On the No. 1 system?

A. It might be rated higher voltage than the actual voltage would be.

Q. 77. What is meant by the voltage gradient?

A. To me it means the intensity of the electrostatic field at a given voltage.

Q. 78. How does the voltage gradient in the No. 1 system compare with that in the No. 2 system as licensed by your Company?

A. The voltage gradient in any part of the field?

Q. 79. In a comparable part in each instance.

A. The processes aren't comparable.

Q. 80. I don't mean to say that the processes are comparable but if you were to measure at a given point in the field of one and at the same point in the field of the other one, what would be the result of the comparison? Would they be the same or different?

A. I think if you had 100,000 volts, a 100,000 volt field or something of that order, opposite to some other electrode such as an article, the same voltage, and the same radius of curvature, they would have similar gradients.

Q. 81. In making that measurement would the space between the electrodes be a factor? I am assuming that the emitter is one electrode and the piece of work is another?

A. In both instances?

Q. 82. Yes.

A. Would spacing of what?

Q. 83. The spacing of the point of discharge of the paint from the emitter, whether it be a gun type or pure electrostatic type, and the piece of work, would that spacing be a factor?

A. I think the air gun in the No. 1 system of course generally is not the electrode. In the No. 2 system, it is the electrode.

Q. 84. What is the electrode in the No. 1 system?

A. Usually separate wires.

14 Q. 85. Are they located in proximity to the gun?

A. Yes, they are located some distance away from the gun, but not far.

Q. 86. What I am trying to ascertain is the fact that if a piece of work is six feet away, the coating process may not work, whereas say it is only a matter of a foot, it might work. Isn't space a factor there in either system?

A. Oh, we like to have a high voltage gradient in either system. We would like to have a pretty effective voltage gradient.

Q. 87. Well now, in the No. 1 system, you had a voltage gradient and how was that produced, by a power pack?

A. Voltage pack. That would be the source of power.

Q. 88. I don't understand that your Company claims any monopoly on all power packs, is that right?

A. That is right.

Q. 89. Those are available in the trade?

A. Yes, as far as I know.

15 Q. 93. Now, you are co-inventor with Mr. Starkey on this patent that is in suit. Just how did you arrive at this process that you claimed as a joint invention? What did you go through in arriving at it with Mr. Starkey? Tell us briefly the history of it.

A. All right. Mr. Starkey dipped a paint brush in some paint and put it at a different potential to a piece of paper and applied some of the coating material to the paper, or he attracted material from the paint brush to the piece of paper.

Q. 94. Was the paper spaced away from the brush?

16 A. Yes.

Q. 95. How far?

A. About a foot.

Q. 96. Did you witness that?

A. Not the first one. That was the second one and I didn't witness that, either.

Q. 97. You are talking about the first step where the paint brush was spaced from a piece of paper and having a voltage gradient between them?

A. That was the second step. When I became familiar with it I was apprised of the fact that he had coated a sheet of paper by maintaining a brush at one potential and a piece of paper at another potential.

Q. 98. And did you see that at that time?

A. No, I saw the piece of paper immediately afterward.

Q. 99. Did he repeat the test for you in your presence?

A. I think he did.

Q. 100. Do you recall what the voltage was and the spacing between these two?

A. Be eight to twelve inches between the two, with a voltage rated at 85 to 90 thousand volts.

Q. 101. Was it a small or a huge brush?

17 A. Two inch brush.

Q. 102. What was the size of the piece of paper?

A. Eight and one half by eleven.

Q. 103. What kind of material was he spraying?

A. Black paint.

Q. 104. When you witnessed it, what did you see?

A. We have that sample here, a sample of that piece of paper.

Q. 105. You have the paint brush too?

A. No.

* * * * *

21 Q. 134. Now, in that test that was made by Mr. Starkey was there any provision whatsoever made for controlling the rate at which paint was fed to the brush?

A. I don't think so.

Q. 135. How did the paint get on the brush, as you understood it?

A. Dipped in a paint bucket.

Q. 136. Well, in the previous electrostatic processes
22 or systems that you had licensed prior to this test, in which you used a gun, was the rate of flow of liquid to the gun controlled?

A. Our guns had paint introduced at a controlled rate.

Q. 137. How did you usually effect such control in such systems?

A. With fluid pressure regulators.

* * * * *

23 Q. 145. You don't claim to have any monopoly in your Company on impellers for pushing paint, whether it be a diaphragm or a piston for a pump, do you?

A. Not broadly.

Q. 146. Now, after this step by Mr. Starkey, what next transpired in this development of the so-called Starkey, et al. process that is here in suit as the No. 2 system?

A. A customer visited us on November the 9th and brought with him a part, I believe for radar equipment, that he wanted to coat that part and in working with that customer, we dipped the part in some varnish, and it filled with liquid, or got a lot of liquid in it, and we were trying to remove the excess and I was performing the work and noticed the beautiful spray coming off of that.

Q. 147. Is that sometimes referred to as a detearing process?

A. We were trying to detear the part, yes.

24 Q. 148. That is sort of the reverse of the action of depositing, isn't it?

A. It is removal, that is right.

Q. 149. In other words, what you do is remove by electrostatic means excess material on a part that is coated, is that correct?

A. Yes.

Q. 150. Tell us exactly what transpired at that time.

What equipment did you have and what did you do and what did you observe?

A. Well, this was being treated on the same unit that this paint brush test had been run on. The part was dipped in a shallow pan of varnish and then suspended above the grids of opposite potential and the high voltage was turned on and it sprayed the bottom of the part.

Q. 151. Onto what was the surplus paint sprayed?

A. Onto the detearing grid first and then later we repeated it with paper.

Q. 152. And what was your observation of the results as compared with what you had seen on the paint brush?

A. Well, they seemed to give forth a very nice uniform spray.

• • • • •

36 Q. 209. In your two patents that I have been referring to, reference is made to electrostatic. What do you understand by the term "electrostatic?"

A. Oh • • •

Q. 210. (Interposing.) And with particular regard to the systems that you have licensed, the No. 1 and No. 2 system.

A. The word "electrostatic" is electrical energy
37 without appreciable flow of current.

Q. 211. And can it occur with AC current?

A. Yes.

• • • • •

42 Q. 236. According to your patent, 18 represents some sort of, it looks like a rectangular • • •

A. (Interposing.) On 18—I am sorry. I was looking over here.

• • • • •

Q. 241. And that is what might be termed the emitter?

A. That would be a satisfactory word. We call them atomizing heads.

• • • • •

45 Q. 256. In this development which you carried on and which was later exemplified by Figure 1, was there enough pressure behind the paint in the reservoirs, 18, so that the paint would flow out of the holes even though the electrostatic force was not on?

A. It would flow out at a very slow rate.

Q. 257. It would sort of ooze out?

A. Yes.

Q. 258. How much pressure did you actually use? Have you any recollection?

A. I don't recall.

Q. 259. Was it a small amount or a large amount?

A. Those are relative terms.

Q. 260. Was it in the order of say a couple of pounds?

46 A. Or more.

Q. 261. As a matter of fact, in air guns, they use very low pressure too, don't they?

A. The No. 1 system we frequently go down to two or four pounds.

Q. 262. You don't use any more air pressure in this system exemplified by Figure 1, you made?

A. Not appreciably, not ten times the normal amount or anything like that.

Q. 263. Now, in this emitter that you built, like Figure 1, with Mr. Starkey, when you turned on the electric energy of power pack, 20, to set up an electrostatic field, what happened to the paint or the droplets of paint that had oozed out of the holes, 15?

A. They atomized and went on to the target.

Q. 264. Now, did you have any separate means, separate means apart from the electrostatic force to disperse the atomized liquid?

A. No, the electrostatic field did all the dispersing.

Q. 265. Did you have any separate means aside from the atomizing energy to effect coating?

A. No. The electrostatic field, plus the small
47 amount of pressure you were talking about caused all of the coating.

Q. 266. Did you witness that operation?

A. Oh, of course.

Q. 267. Did you ever observe in operating that system like Figure 1, where the droplets of discharged paint were atomized without any dispersion?

A. No.

Q. 268. The paint was always dispersed?

A. Yes. During that operation of this device, yes.

Q. 269. When you turned on the energy the paint always would be automatically coated on the object?

A. Be deposited onto the object.

Q. 270. The motivating force for putting it on the object was not the pressure behind the fluid but it was electrostatic force?

A. Right.

* * * * * *

55 Q. 314. As I understand it, as soon as you turned the atomizing energy on from power pack 20, you automatically effected atomization, dispersion and coating, is that correct?

A. If we had the fluid introducing little droplets of paint.

Q. 315. Assuming paint was in the orifices or coming out of the orifices, 15, you automatically got atomization, dispersion and coating.

A. If it was coming out in little droplets. I don't know what you mean by automatic, however.

Q. 316. You didn't have to do anything further than turn on the energy to get the atomization?

56 A. If we fed the paint properly.

Q. 317. Then you had atomization, dispersion and coating?

A. If we fed the paint properly and located it as we did.

Q. 318. I understand you used a conventional flow regulator so there was no problem about feeding? You used it the same as you always • • •

A. (Interposing.) Standard fluid pressures.

Q. 319. So assuming that you used the standard fluid pressure regulator • • •

A. (Interposing.) If adjusted properly.

Q. 320. And adjusted properly, which you would have to do in any feeding system, and it was hooked up to the head, 13, as soon as you turned on the energy from the pack 20, you effected atomization, dispersion and coating?

A. Right.

Q. 321. You couldn't effect one without the other, could you?

A. Not with the setup we used.

Q. 322. Well, I mean as far as the setup shown in your patent here No. 2685536, you couldn't effect one without the other?

57 A. With the paint and all that we were using, why they all worked together.

• • • • •

59 Q. 336. Now, with reference to this form shown in Figures 5 and 6, which you say you gave to your attorneys in the form of sketches, do the needles, 215, define the points of discharge of the particles or droplets of paint?

A. You mean the point of atomization?

Q. 337. Yes.

A. The point of atomization would be just below the needles, below the droplets supported on each needle.

Q. 338. On the pointed end of each needle?

A. The droplet would be supported on the end of the needle and then the atomization would take place from the droplet.

Q. 339. Does the needle have a lower pointed end as shown in Figure No. 5?

A. Yes.

Q. 340. And would the droplet be supported from the pointed end?

A. Yes.

60 Q. 341. These needles are closely spaced and aligned, are they?

A. The needles themselves are butted up against each other.

Q. 342. Well, are there pointed ends spaced from each other?

A. Yes.

Q. 343. And they serve to define a plurality of globule or particle paints at the atomization area, is that right?

A. At the atomizing area?

Q. 344. Yes.

A. They support a plurality of droplets immediately above the atomizing zone.

Q. 345. Well, what I am driving at, these droplets are supported in spaced relationship by the pointed tips of the needles until they are atomixed?

A. Yes.

Q. 346. And then when they are atomized they are dispersed toward the object being coated?

A. Dispersed. I'd say they are dispersed laterally as they go toward the object being coated.

Q. 347. This form then as shown in Figures 5 and 6
61 differs from that shown in Figures 1 and 3 in that the points of paint or whatever you call them, are supported on the tips of the needles, 215, instead of coming out of the holes, 15, as in the other forms, is that right?

A. The droplets are supported on the tips of the needles instead of the droplets coming out of holes.

Q. 348. When they would come out the holes they would be supported momentarily by the wall supporting the hole, the edge of the hole?

A. Yes.

Q. 349. Until they are atomized?

A. No, the droplets are never atomized. They just give off atomized material.

Q. 350. What do you mean by that, sir? Can you explain it to us?

A. Well, the droplet is supported there on the head and as new material is fed into the droplet, material is also being removed from the droplet at the same rate, being removed by the electrostatic field.

Q. 351. In other words, as this droplet or point of
62 paint is formed, it is immediately removed by the electrostatic force and another droplet takes its place?

A. No, I don't mean that.

Q. 352. What do you mean?

A. Just what I said, that a droplet is supported there and as material is removed new material is fed into the droplet.

Q. 353. It is a continuing droplet, then?

A. That is right.

• • • • •

64 Q. 364. So in all three of these forms you have some means—in the one case the orifice is 15 and in the other case the needle is 215 and in the third case the wire wrapping 315 for supporting the spaced droplets of paint as they come out of the applicator head?

A. I didn't know what you were driving at when you were listing those numbers so I wasn't able to follow your question.

• • • • •

65 Q. 365. Mr. Ransburg, referring again to your patent No. 2658009, Exhibit C, do you know whether you ever built that device?

A. Yes, we did.

Q. 366. Ever put it into production and commercialize it?

A. Not the specific device as shown.

Q. 367. According to that disclosure, you undertake there to set up two different electrostatic fields, is that correct?

A. Well, in that there is a field from the gun and a field from the deflecting electrode.

Q. 368. In the first paragraph of this patent No. 2658009, reference is made to the fact that this inven-
66 tion relates to electrostatic processes such as that shown in a number of pending applications, the first of which is your Starkey and Ransburg application, Serial No. 556390, which is now issued to Patent No. 2685536. You find that first paragraph?

A. Yes.

Q. 369. Now, what I would like to ask you is whether, as far as you know, you developed the structure comprising the subject of this Ransburg Patent 2658009, Exhibit C, before or after your work with Mr. Starkey in developing the subject matter of your 536 Patent in suit?

Mr. Hume: What relevancy has that?

Mr. Meroni: It will appear.

A. Developed it after.

Mr. Meroni: We have an allegation of double patenting with respect to Exhibit C in the pleadings.

Mr. Hume: As a defense against the patent in suit?

Mr. Meroni: That is right.

67 Mr. Hume: Touching the alleged invalidity of the patent in suit?

Mr. Meroni: That is right.

Q. 370. (By Mr. Meroni.) Referring to Figure 3, for example, let's say Figures 3 and 4 of No. 2658009, Exhibit C, if you omitted the electrodes, 329 and 330 at the end of the applicator, how would that applicator or atomizing head compare with the one that you worked on with Mr. Starkey in the latter part of 1943?

A. Which electrodes were those?

Q. 371. 329 and 330.

A. How would that compare?

Q. 372. Yes.

A. Perform the same function.

Q. 373. Now, you refer also to the edge, 316, of that device shown in Figure 4, in column six of the patent, line 41 as a corona discharge edge.

A. Right where you have drawn the pencil mark?

Q. 374. Yes. What is a corona discharge edge?

A. An edge that can give forth corona discharge.

Q. 375. Did the device that you worked on with Mr. Starkey in the latter part of 1943 leading up to the filing of your application of the Starkey Patent 536 in suit

68 have a corona discharge edge? Here is a copy of that patent, Exhibit A.

A. It disclosed droplets that could give forth a corona discharge.

Q. 376. Does a corona discharge, insofar as your patent Exhibit A is concerned, play any part in the atomization according to your understanding?

A. I don't know how much effect the corona discharge has upon the atomization.

Q. 377. But you did see it there when you looked at it?

A. I have seen corona discharge from the No. 2 process atomizing head.

• • • • •

81 Q. 439. By the way, Mr. Ransburg, did your Company ever put into production for commercial sale any

82 of the four different types of applicator heads or atomizing heads shown in the patent?

A. You mean identical to those shown in the patent without modification?

Q. 440. Either identical or substantially identical.

A. We put one into commercial use that had an improvement or modification in it.

Q. 441. But you didn't put any into production without the modification or improvement?

A. No.

Q. 442. What was the improvement that you are talking about?

A. Where we smoothed out the edge of the metal plate and ran the coating material down one side of the plate.

Q. 443. Did it have a wire wrapping?

A. No.

Q. 444. Did it have a plurality of holes punched any place for the paint to go through?

A. No.

Q. 445. Did it have a plurality of needles?

A. No.

Q. 446. Actually wasn't the first commercially pro-
83 duced Ransburg No. 2 head, which was made on a production basis and sold by your Company of the so-called cone or bell type?

A. Made on a production basis?

Q. 447. Yes.

A. You mean where we put out a lot of them, where we have many, many units?

Q. 448. Yes, where you produced them on large scale for licensing to the trade.

A. On large scale use, yes.

Q. 449. You had one use of a different type, I believe, at the Chicago Enamel Steel & Sign Company?

A. Yes.

Q. 450. Was there any other?

A. Not in commercial use.

Q. 451. That is one that was referred to in the prosecution of your application in an affidavit of Mr. Simmons. Do you remember that?

A. Yes.

Q. 452. How did it happen you didn't go into commercial production with that one and chose the cone one in preference?

A. We liked the cone one better.

84 Q. 453. Does the cone type effect some discharge through centrifugal means?

A. Some.

Q. 454. That is supplemented by the electrostatic action?

A. The feeding is substantially centrifugal and the atomizing is substantially electrostatic, generally speaking.

Q. 455. If you cut off the electrostatic force, would some of the paint still be thrown out?

A. Yes, but in large particles.

Q. 456. What is the significance of large particles as distinguished from small particles and how do you determine whether they are large or small?

A. I think all spray men pay a little attention to what kind of material they are getting and a good spray man knows when he is getting particles small enough. He can tell by the deposition on the article.

Q. 457. That has been true, you would say, since the inception of the spray gun?

A. I would assume so.

Q. 458. That would be long prior to any work on this 536 device at the end of 1943?

85 A. Yes.

Q. 459. In the course of your work with the device at the Enamel Sign Company, were there some specific objections to it that occurred to you?

A. What do you mean "specific objections"?

Q. 460. Well, some reasons why you didn't put it into production. In other words, you spent a great deal of money. What was your reason for not adopting it at that time?

A. We liked the round head better.

Q. 461. Did the round head or cup or conical type, or whatever you want to call it, have advantages over it? Is that why you liked it better?

A. Yes, I think it had some advantages.

Q. 462. What are the advantages?

A. It can be more readily oriented in relation to spraying in different directions. That is one advantage. Another advantage is that when we spin the round heads, centrifugal force thins the film and that is beneficial.

Q. 463. How about cleaning? Would you say it is easier to clean the cone type than the wire type you had down at the Chicago Enamel Sign Company?

86 A. We didn't have a wire type at Enamel Steel & Sign.

Q. 464. What type did you have there?

A. The flat plate over which we flowed the material to the edge, at which it atomized and painted the articles.

Q. 465. How was the flow of paint controlled there?

A. I believe we had a paint feed orifice along the blade.

Q. 466. In any event, that type that you had at the Chicago Enamel Company is not shown specifically in your Starkey, et al. Patent, the 536 patent in suit?

A. The entire arrangement is now shown there.

Q. 467. Well, is the applicator head at all shown and if so, point it out.

A. Well, many similar features are shown.

Q. 468. Well, do you show any head here with a plate such as you used in that Chicago Enamel installation?

A. You mean with an exposed plate?

Q. 469. Yes.

A. Well, the Enamel Steel & Sign plate had a substantially smooth, sharp edge. These heads here had an irregular leading edge which was atomized.

Q. 470. I believe every one of the applicators or
87 heads shown in your 536 patent are of a V-shape. Was there one at the Enamel Company of a V-shape?

A. Yes, the edge was V-shaped, the edge where the atomization took place, yes.

Q. 471. As I understand it, you used a different way of supplying controlled paint to it than shown in Figure 1?

A. We used a hose, pressure on the hose, but we reciprocated the end of the hose.

Q. 472. You recall offhand when you made that installation at the Chicago Enamel Company?

A. I think if you refer to the file wrapper, it will give you the date.

Q. 473. You mean Mr. Simmons' affidavit?

A. Yes.

Q. 474. Mr. Ransburg, if at any time my question is not clear, please do not hesitate to ask me to clarify it, as I have no intention of asking you tricky questions. All I am trying to do is to get the facts.

Here is Mr. Simmons' affidavit which was filed in the Patent Office on May 4, 1949 and starts at pag. 4 of my copy. You are free to refer to it and refresh your
88 recollection as to the time.

A. From the date here, I would gather it was April the 15th of 1949 that it was put into production use.

Q. 475. Was that the first commercial installation that was made of this so-called electrostatic airless spraying, that you know of?

A. The first one where enough production was run where we could call it commercial production, I believe.

Q. 476. Well, I mean by that, was it the first customer that had one of your airless type of sprayers?

A. Yes.

Q. 477. Did you, at your plant in Indianapolis or any place else, commercially use the airless electrostatic system for manufacture of parts that were sold through channels of commerce?

A. Not what I would call commercial.

Q. 478. I hand you what purports to be the Turner Patent No. 2651287 issued September 8, 1953 from an application filed March 10, 1949 and ask you if you can identify the structure there shown and whether it has any relation
89 to what you installed at the Chicago Enamel Company.

A. Parts of the drawing have some similarity to what was shown at Enamel Steel.

Q. 479. How do the principles of operation of that device compare with the one you installed at Chicago Enamel? Does it operate on the same principle? As far as feeding the material is concerned?

A. As far as feeding the material is concerned, it is quite similar.

Q. 480. That is a reciprocating feed of some sort?

A. Yes, I believe so.

Q. 481. Does it have the plate such as you have been talking about along which paint is fed?

A. Yes.

Q. 482. Wherein does it differ substantially from what was used at the Chicago Enamel Company? I might say what I am trying to do is to obtain some picture of what you actually installed, and if this is a fair approximation we will so identify it.

A. Fairly similar, but without these end plates. I don't believe that we used those end plates at Enamel Steel.

115 Q. 594. (By Mr. Meroni.) While we are talking about that subject, that brings up another point in your patent. In your 536 patent, you start right out in the first sentence and say this invention relates to a method and apparatus for electrostatically coating articles with a liquid coating material such as paint, lacquer, ink, wax and the like. Who gave the information to your attorneys that prepared this application that this invention related to coating materials such as these enumerated?

A. I think Starkey and I thought those materials would be applicable to the process.

Q. 595. Now, had you tried out all of those materials before you filed your application?

A. No.

Q. 596. What ones had you tried out?

116 A. Paint.

Q. 597. Well, do you know whether—

A. (Interposing.) And probably lacquer, paint and lacquer.

Q. 598. As a matter of fact, would it work with all forms of lacquer?

A. I never tried all forms of lacquer. It works all right with most lacquers.

Q. 599. Is that true of your No. 2 process? Have you ever tried any of them with ink?

A. Tried our process?

Q. 600. Yes.

A. I don't believe we have.

Q. 601. Ever tried it with wax?

A. I think I did try it with wax once.

Q. 602. Any recollection when?

A. Many years ago.

Q. 603. Well, from your knowledge and experience of this airless process, supposing you substituted wax for the paint on that paint brush in that initial experiment

which Mr. Starkey made. Would the liquid wax have been sprayed?

A. I don't know. It is according to the wax, prob-
117 ably.

Q. 604. When you tried it out with wax, did it work?

A. To some extent, not as good as paint.

Q. 605. But it did work?

A. Oh, some left the blade but not anywheres near as well as paint.

Q. 606. Were you aware of the fact that it was old to use an electrostatic field or force for spraying wax?

A. You said was I aware?

Q. 607. Yes.

A. No.

Mr. Hume: Your question is directed to the time he made this?

Mr. Meroni: I mean at the time that he evolved this improvement or claimed improvement prior to filing his application.

The Witness: No.

Q. 608. (By Mr. Meroni.) Have you since tried it out with wax?

A. Yes.

Q. 609. Have you tried it recently?

A. No. Wait a minute. It seems to me that one of our men may have tried it with wax recently.

118 Q. 610. With what result?

A. With intermediate results.

Q. 611. Well, did it atomize the wax?

A. It removed particles but not as fine as normal paint spray particles.

Q. 612. How fine do the particles have to be in order for them to be normal?

A. Well, I think, as I said earlier, I think the average

paint spray man knows that he is depositing the coating on an article when—

Q. 613. (Interposing.) Well, in your patent you spell out that when you talk about coating material you include wax. Now, who would know how fine the particles of wax have to be in order for them to be electrostatically sprayed properly?

A. I don't know. Probably be dependent upon the application, what they wanted to use it for.

• • • • • •

121 Q. 634. Based upon your experience and knowledge over these many years in connection with your airless process, you think it would work with tar?

A. I think of tar as what you put on the street but I wouldn't expect to use that in this process.

Q. 635. Would you say that your process was primarily for spraying paints?

A. Primarily, yes.

• • • • • •

134 Q. 707. It did vary?

A. Yes.

Q. 708. Well, did you actually vary it to see the effect of such variation on the electrostatic spray?

A. No. That was built into the pack so that it continually varied 60 times a second.

Q. 709. Well, did you in any way undertake in your work in connection with this airless spraying prior to the time you filed your application, to determine the upper and
135 lower limits of the high voltage that was necessary to accomplish the end result?

A. No, we didn't explore the entire range. We knew this range was adequate.

Q. 710. What range are you talkin about now?

A. Fifty to eighty thousand volts.

Q. 711. Did you find any voltages that were too low to secure atomization?

A. We didn't go down to low voltages.

Q. 712. Then I take it you did not at that time, prior to the filing of your application, determine the upper and lower limits of the high voltage that you would have to have to use for effective electrostatic atomization?

A. That is right.

• • • • •

159 Q. 802. And when was the first time you heard of the use of an electrostatic field for atomizing purposes? Either with air or otherwise?

A. Well, I have never heard. I think some of our early tests, it was noticed that atomization took place.

Q. 803. How far back would that be, roughly?

A. Approximately 1938.

Q. 804. What did you observe that time? Can you recall anything specifically?

A. No.

Q. 805. You went to a technical high school, did you not?

A. Yes.

Q. 806. Did you study physics at the high school?

A. No, did not have physics at the high school.

Q. 807. Did you take any courses in electricity at the high school?

A. No.

• • • • •

162 Mr. Meroni: Now, I would like to refer to the interrogatories that your company propounded to the Binks Company. Do you have them before you?

Mr. Hume: We will have them in just a minute.

(The documents in question were handed to the deponent.)

A. Yes.

Q. 821. Did you have anything to do with the preparation of those interrogatories?

A. I knew that some interrogatories were being prepared.

163 Q. 822. Let's put it this way: did your Counsel discuss with you the technical subject matter involved in the interrogatories?

A. I believe these were formed in my absence.

Q. 823. Did they check them with you before they released them?

A. I think I read them.

Q. 824. Referring to interrogatory 2-C, which reads as follows: "What was the potential employed between the article and unatomized liquid coating material at the emitter in each such case?" Why is that of any moment?

A. Well, if they used 100 volts, why it would be quite different than if they used a number of kilovolts.

Q. 825. Would you say that it would be, or would have been necessary to have at least used some kilovolts before the subject would have been pertinent?

A. I never think of it as an electrostatic field unless there are several thousand volts.

Q. 826. Well, actually using your airless type of electrostatic spraying, would you get any atomization at all at 100 volts?

164 A. Well, let's see. I don't think the process would work at 100 volts, at all.

Q. 827. Would you get any atomization at all at say 1,000 volts?

A. I don't know if I have ever tried a thousand volts.

Q. 828. What is the lowest voltage you have ever used or seen used during the operation of your airless No. 2 system?

A. I don't recall but I think we answered on the inter-

rogatory that somebody in the company used 20,000 volts, but that could be verified.

Q. 829. Well, in your answer to our interrogatory No. 21, you said, "Defendant has electrostatically atomized conventional liquid coating materials commercially at a voltage as low as approximately 20,000 volts." Is that what you allude to?

A. Yes.

Q. 830. Have you ever seen the No. 2 system operated at any lower voltage than 20,000 volts?

A. Not that I know of.

Q. 831. And in answering 22-A Ransburg said, "Defendant's electrostatic coating process, using compressed air spray guns have been operated commercially at a 165 voltage as high as aproximately 90,000 volts." Is that correct?

A. Yes.

Q. 832. And how high has the voltage been as far as your observation is concerned in the case of the airless or No. 2 system?

A. Was there an interrogatory on that?

Q. 833. I don't recall that there was. There may have been.

Mr. Hume: Are you asking this question within the knowledge of this witness or something speculative or on an experimental basis?

Mr. Meroni: I asked him what he observed. I believe the question included that.

A. Observing it, I don't think I would necessarily know the voltage being employed. I am not certain just how high our company has gone in experimental work on voltage.

Q. 834. Well, commercially, how high have you gone?

A. Well, we have packs rated at 110 kilovolts and the actual voltage might be somewhat under that.

Q. 835. Well, does the actual voltage depend upon the spacing between the applicator and emitter and the 166 object being coated?

A. We usually correlate the two.

Q. 836. Well, doesn't there have to be a definite relationship of space and voltage in order for you to get satisfactory commercial atomization in the electrostatic field without the use of air?

A. You mean to obtain the results that complete the process effectively, there should be a range correlating the two or a range within which both spacing and voltage should exist?

Q. 837. Yes.

A. That is right.

Q. 838. Now, in the interrogatory No. 2-D that you propounded to Binks, Ransburg said, "Was such potential substantially unidirectional in each case, or if not, in which such cases?" Wherein is it important that the potential be unidirectional?

A. Well, DC current is to be desired.

Q. 839. Have you ever licensed or sold a customer a license with equipment wherein anything but DC was used?

A. Not to my knowledge. DC would always be used.

Q. 840. By DC do you also include a pulsating type?

167 A. Yes, a pulsating DC.

Q. 841. In your Interrogatory 2-E, you inquired what was the spacing between the emitter and the article in relation to each voltage specified in answer to portion C of this interrogatory where such potential was substantially unidirectional. Was spacing there important from the standpoint of it falling within the range?

A. You could operate it at too close a spacing.

Q. 842. You could also operate at too far a spacing?

A. In relation to a given voltage in order to work effectively.

Q. 843. Now, Ransburg, in Interrgoatory 3-A, inquired, "Was the paint or other liquid coating material force fed at a controlled substantially uniform rate to the slot of the disk emitter?" Wherein is that of any moment?

A. Well, to get a good spray painting operation you want to feed the liquid at a controlled rate.

Q. 844. You mean it must not get to the atomizing edge of the emitter or applicator too slow or too fast, is that right?

A. No. You wouldn't want to shut it off and then
168 gush it out at a fire hydrant rate.

Q. 845. If it gushed out faster than it could be atomized it wouldn't be any good, would it?

A. That is right.

• • • • •

169 Q. 853. And I have here a letter dated October 4, 1955 written by Mr. Hughes to the Body Brothers Paint Company in Bedford, Ohio, wherein he states, "We received the five gallons of your D-131 aluminum undercoater and have ran some atomization tests
170 here last Saturday to determine how well this material atomized. I am sorry to report we had very little if any luck." Do you have any familiarity with that? It is a letter that came from your files.

A. I don't believe I have ever seen the letter before or heard of that specific case. I don't believe I have ever heard of Body Brothers Paint Company before.

Q. 854. I have another letter here written by one of your salesmen, Mr. Maxwell, to the All Steel Company dated September 22, 1950, wherein he stated he ran three paint samples which would have a globby appearance when applied to panels. He said the results were poor. "Atomization was poor and globby appearance showed on all panels." You have any knowldege of that?

A. I don't have any knowledge of that letter or those specific tests.

Q. 855. Indicates that your salesman was having some difficulty with that paint, doesn't it?

A. Yes. It is according to what the paint was supposed to do.

171 Q. 856. Well, you wouldn't say then that your No. 2 system can satisfactorily handle all types of paint?

A. Not every conceivable paint that a company could make. Here I would gather from the letter they were attempting to make a test on non-conductive metallic paints. They may have tried some freak formula or very unusual formulas.

Q. 857. You wouldn't say your No. 2 system would spray all types of metallic paints, too, either, would you?

A. Yes, I think it can spray all types of metallic paints.

Q. 858. And give a satisfactory coating as to all metallic paints?

A. It is according to what the customer would want.

Q. 859. Well, have there been any paint jobs which you have indicated to customers you could not handle?

A. Well, some customers want an orange peel and some customers want a smooth finish.

Q. 860. What is an orange peel, may I ask?

A. It is referred to because it has some similarity to a peeling on an orange but it is less pronounced.

Q. 861. Sort of pebbled?

172 A. Slightly rough, not perfectly smooth.

Q. 862. Are you aware of the fact that Mr. Miller had some experience in connection with General Electric work with regard to applying carbon black materials to the inside surfaces of television tubes?

A. I believe very vaguely.

Q. 863. I have a memorandum here from your files signed by Mr. Miller, dated June 30, 1950, wherein, among

other things, it says; "E. M.'s reasoning as to why our processes would not work satisfactorily for this particular application * * *" and I hand you that memorandum and ask you if you know anything about the subject.

A. I am not very educated on the subject. My understanding is that the coating of the inside of a television tube is a very meticulous coating operation.

Q. 864. Have you been able to successfully do it with your No. 2 system?

A. I don't know we have successfully done it.

Q. 865. I hand you another letter written under date of May 21, 1954, written by Maxwell to the GE Company
173 wherein he says, "We regret to advise our equipment would not be applicable to the application of coating a glass enamel with a black electrically conducting paint." Do you recognize that as an official letter coming from your files?

A. Yes.

Q. 866. No question but what you did so advise General Electric?

A. John Maxwell so wrote them.

Q. 867. And he is your salesman?

A. Yes.

Q. 868. I hand you another letter written by Mr. Miller to the GE Company, General Electric Company, relative to whether or not your processes could be used for applying a coat of adhesive to precured paper base phenolic materials. Do you know anything about that subject?

A. Do I have any knowledge of what?

Q. 869. Of the subject of that letter.

A. No.

Q. 870. You know whether or not you did work it out for General Electric to use your spraying equipment in conjunction with applying a coat of adhesive
174 to pre-cured paper base phenolic materials?

A. No, I do not.

Q. 871. You know whether it can be used, whether your No. 2 system can be used for that purpose?

A. Not with the information at hand.

Q. 872. I have here what purports to be another letter written to the Ford Motor Company in Canada dated May of 1953 by your brother Harold P. Ransburg, wherein on page two it states, "The No. 2 process does not lend itself to heated paint in that the atomizing bells tend to cool the paint before it reaches the edge from which it is atomized." Is that a correct statement?

A. It is correct insofar as the No. 2 processes, as he was contemplating it, was going to be used with an atomizing bell.

Q. 873. Well, is heat a factor?

A. It is a factor of viscosity.

Q. 874. And it has to be taken into consideration, doesn't it?

A. What do you mean has to be taken into consideration?

Q. 875. Well, your No. 2 system couldn't be used successfuly to commercially handle all types of heated 175 coating materials, could it?

A. I don't know.

Q. 876. From that statement made by Mr. Ransburg in that letter, that is your brother, it would appear that there is one material there that your No. 2 system couldn't handle, a heated material, isn't that right?

A. I think he was visualizing using the process, and conjectured that the paint would cool by the time it got to the edge of the bell.

Q. 877. Yes, but you were feeding a heated material to the edge of the bell, were you not?

A. I don't believe we were doing anything. I think he says the No. 2 process does not lend itself to heated

paint in that the atomizing bells tend to cool the paint before it reaches the edge where it is atomized and there evidently he is concerned considering the atomizing bells.

Q. 878. In other words, as far as the atomizing bell type system is concerned, you couldn't commercially use it with that heated paint because the paint would cool too fast, is that right?

A. You say as far as being commercially used?

176 Q. 879. The atomizing bell is concerned, yes. That is what he is talking about, isn't it, the No. 2 system?

A. Yes. If the bell is at room temperature and the paint is at an elevated temperature it would cool some flowing to the point of atomization.

Q. 880. That might be a serious factor?

A. Could be, I would imagine.

Q. 881. I have here another letter dated March 4, 1952 from the General Electric Company asking for information on the application of your electrostatic spraying method for coating irregularly shaped pieces of stainless steel with high temperature coatings, and I have here the reply dated March 20, signed by Mr. Stone, in which he says, "We do not feel that our present equipment would be entirely satisfactory for such an application at this time. If at a later date we do feel we have something to offer for such an application we shall look forward with pleasure to contacting you at that time." Have you ever developed anything to meet that requirement of the General Electric Company?

177 A. We at one time, I believe made a heated bell but we never installed any commercially. Is that what you mean?

Q. 882. Well, have you been able to furnish General Electric since Mr. Stone wrote that letter with any spraying system that would perform the job they wanted?

A. I am not certain what they are wanting here.

Q. 883. Well, do you disagree with what Mr. Stone said? Was that Mr. Stone who wrote that?

A. Yes.

Q. 884. You disagree with his statement?

A. No, I don't disagree with his statement, no.

Q. 885. I have here another letter dated October 3, 1955, written to the Acme Electric Corporation in Cuba, New York, by Mr. Maxwell. He is also a salesman, is he not?

A. Yes.

Q. 886. And on page two he says, "For your general information, we have not been able to successfully produce a good hammer pattern with the No. 2 process." By "hammer" do you mean this orange peel effect?

A. No, by "hammer" is meant metallic finish that 178 would look like metal hammered or pinged by a hammer.

Q. 887. And then he goes on to say, "We have some customers using the No. 2 process in conjunction with hammertone paints and are satisfied with the results although in our opinion they could not be considered perfect. The No. 1 process is used throughout the country for applying hammertone paints and we would not anticipate any difficulty whatsoever." Is that in accord with your understanding of the situation? I read from the top of page two.

A. Now, may I hear the question, please?

(The reporter read the last question as follows: "And then he goes on to say, 'We have some customers using the No. 2 process in conjunction with hammertone paints and are satisfied with the results although in our opinion they could not be considered perfect. The No. 1 process is used throughout the country for applying hammertone paints and we would not anticipate any difficulty whatsoever.' Is that in accord with your understanding of the situation? I read from the top of page two.")

A. I think he is referring to the fact that the customers are satisfied with the results obtained in using the No. 2 process in conjunction with hammertone.

179 Q. 888. But you thought you could do a better job with the No. 1 system than the N. 2?

A. I think so.

Q. 889. Well, in other words, in some jobs the No. 1 system is more suitable than the No. 2, isn't that a fair statement? And vice-versa?

A. Yes.

Q. 890. You wouldn't be selling both systems if the No. 2 system could do all the jobs, would you?

A. I wouldn't.

Q. 891. Now, we have here another memorandum written by Mr. Darrell Creps, a distributor. Is he a distributor for your company?

A. Yes.

Q. 892. Located in Toledo?

A. Cleveland.

Q. 893. This is on one of his service calls to the A. P. Parts Corporation. He said, "Mr. R. D. Lamb asked about the No. 2 process and after our discussion it was decided that they spray too much of a variety of shapes and sizes to make the No. 2 applicable. He understands the situation and is very proud of his present op-

180 eration." Doesn't that also lend support to the fact that the No. 2 system lends itself better in some jobs than the No. 1, and the No. 1 lends itself better in some instances for other jobs?

A. At the time of that letter, I presume so.

Q. 894. Isn't it a fact, isn't that also a fact now? You are still selling both systems, aren't you?

A. Yes.

Mr. Meroni: I would like to have this group of letters marked for purposes of identification as exhibits.

Q. 895. Do you have something else to say, Mr. Ransburg? I didn't mean to cut you off.

A. You said isn't it a fact we are selling both systems?

Q. 896. Yes.

A. Yes.

Mr. Meroni: Letter dated December 22, 1953, FF-1, addressed to All Steel.

FF-2, report re General Electric dated June 30, 1953, signed by E. P. Miller.

FF-3, letter by Mr. Maxwell to General Electric dated May 21, 1954.

181 FF-4, letter dated May 8, 1953 to the Ford Motor Company of Canada, written by Harold P. Ransburg.

FF-5, letter dated March 20, 1952 from R. H. Stone to the General Electric Company and FF-6, letter dated March 4, 1952 from General Electric Company to Ransburg.

FF-7, a three-page letter to Acme Electric Corporation dated October 3, 1955 from Maxwell.

FF-8, inter-office communication from Mr. Creps dated August 20, 1951 relative to A. P. Parts Corporation.

And here is one more, a letter dated October 4, 1955 from Mr. Hughes to the Body Brothers Paint Company, and this will be FF-9.

There is one more, the letter dated July 28, 1954 by E. P. Miller to the General Electric Company, as FF-10.

* * * * *

202 Q. 924. Well, I hand you a group of letters, Z-1 to Z-7 inclusive, all of which were apparently signed by you, and ask you if that will help your recollection.

A. That is what I was referring to. If you would have handed it to me earlier, I would have answered more definitely. This letter to Ainsworth dated May 27, Exhibit Z-1, I sent out.

Q. 925. Well, can you look at those quickly and say
203 if it isn't true that you sent them all out?

A. Yes, Exhibit Z-1, Z-2, Z-3, Z-4, Z-5, Z-6 and Z-7.

Q. 926. We selected those as being representative, inasmuch as you have many licensees. I presume you sent letters like that to all of your licensees?

A. Of a similar purport.

Q. 927. Now, does that refresh your recollection at all as to what was the occasion of sending out all of these letters back in 1953?

A. I did not need that material to assist in my recollection. We made a definite effort to send a letter of that type to every licensee.

• • • • • •

206 Q. 940. Have you any recollection of the time when you decided to circularize your licensees with letters like these that you have identified in Exhibit Z-1 to Z-7?

A. It was sometime not too much prior to then. We decided to send those letters out to all licensees.

Q. 941. You mean some time prior to May, early in 1953?

A. Yes.

Q. 942. Your brother Harold testified that to the best of his recollection no licensee elected to return the equipment pursuant to the circular letter. How does that jibe with your own recollection?

A. It jibes with my recollection.

• • • • • •

220 Q. 975. Mr. Ransburg, I hand you your Bulletin No. 100 entitled "Pricing Guide" dated May 27, 1953, comprising five sheets of paper, and ask you if that, under the heading No. 2, spray process, on page 2, pertains to the pricing of your so-called No. 2 airless electrostatic system.

A. Would you read that, please?

(The last question was read by the reporter as follows: "Mr. Ransburg, I hand you your Bulletin No. 100 entitled 'Pricing Guide' dated May 27, 1953, comprising five sheets of paper, and ask you if that, under the heading No. 2, spray process, on page 2, pertains to the pricing of your so-called No. 2 airless electrostatic system.")

A. On page two?

Q. 976. Yes.

A. Yes.

Q. 977. Now, I would like to ask you what is it your home office does to determine the monthly paint costs where it says here "Determined by home office"?

A. Well, it says monthly percent paint cost.

221 Q. 978. Yes. We would like to know what your home office does. Tell us everything your home office does in order to arrive at that.

A. We get the information on the type of articles we wish to coat, including dimensions, and then they are generally fitted into one of the charts, the last two pages of this bulletin, which determines per cent of the paint bill we want.

Q. 979. How do you fit them into one of the charts? Can you take an example?

A. This one marked "Pricing Chart No. 3, flat sheets for box-shaped articles having a maximum thickness of one inch," if the article has a maximum thickness of one inch, that is one dimension and the next dimension is 14 or more inches and the next dimension is 22 or more inches, and in that instance our price would generally be ten per cent of the cost of the coating materials sprayed for the monthly fee.

Q. 980. How do you arrive at the figure of ten per cent?

A. We just arbitrarily take ten per cent on that, be-

cause in the next article, which would be just a size
222 smaller, possibly similar dimensions, but smaller, in the second and third dimensions, we get a larger per cent of the paint bill on that.

Q. 981. Then you just arbitrarily set those percentages? You pick them out of the thin air, so to speak?

A. I didn't mean to imply that. We arbitrarily set them.

Q. 982. From what basis?

A. In relation to efficiencies of using coating material by competitive systems of electrostatic spray painting.

Q. 983. Aren't those percentages determined by first running the system yourself and ascertaining what the likelihood saving in paint could be under proper conditions?

A. We have run tests on each of this class of article.

Q. 984. I understand you have run tests but the point I am asking is, don't you first run these articles in an installation that you think should approximate the installation of it in the field, and base it on the paint saving that you think should be effected under as efficient an operation as you carry out?

A. No, we don't do that on every job.

Q. 985. You spot it and do it on some jobs, don't you?

223 A. If the article falls in a certain class, then the percentage applies to that class of article as would apply to that class of article.

• • • • •

230 Q. 999. (By Mr. Meroni.) I hand you what purports to be another bulletin dated August 5, 1952 entitled "Pricing Schedule, No. 2 Process." Can you identify it and if so, tell us what if anything you know about it?

A. This is a pricing schedule for the No. 2 process which contemplates our furnishing equipment to the customer.

Q. 1000. On which you retained title?

A. Yes.

Q. 1001. Proceed.

A. And this dealt with furnishing equipment and only dealt with that phase because we had no conception of anybody ever wanting the license without equipment at that time and no conception of requests from customers. We never had any such requests.

• • • • •

253 Q. 1081. Mr. Ransburg, in the answers to the interrogatories which you previously referred to in your examination there appears a series of some 40 odd forms of printed license.

A. Yes, sir.

Q. 1082. You have them before you?

A. Yes, sir.

Q. 1083. In no instance do I find in any of them any specific identification of particular patents. Can you tell me how it happened that your company decided as a matter of policy not to identify any patents or applications in its licenses?

A. I don't know if we decided one way or the other,
254 the way you put the question, but I believe on advice of Counsel we felt this was satisfactory.

Q. 1084. Are you aware of the fact that something like 170 licenses were granted on the airless system by your company before the Starkey 536 Patent in suit was issued?

A. I don't know the exact number but I am aware a substantial number of licenses on the No. 2 process were granted, prior to the issuance of the patent you refer to.

• • • • •

255 Q. 1087. I hand you a letter dated October 19, 1956 from Mr. Johnson to the Allegheny Ludlum Steel Company identified as Exhibit No. II-1 and ask you if that

is one instance where a licensee has asked you to tell it what patents you had on the No. 1 and No. 2 systems.

The Witness: Would you read that, please?

(The last question was read by the reporter as follows: "I hand you a letter dated October 19, 1956 from Mr. Johnson to the Allegheny Ludlum Steel Company identified as Exhibit No. II-1 and ask you if that is one instance where a licensee has asked you to tell it what patents you had on the No. 1 and No. 2 systems.")

A. Yes.

* * * * *

267 Q. 1124. As far as you know, would you say it is accurate to state that every licensee you have of the No. 2 airless type system uses either a bell or a rotating bell or a rotating disk as the applicator?

A. I believe so.

* * * * *

269 Q. 1132. Now, Mr. Ramsburg, I call your attention to the Starkey, et al. Patent, the 536 patent, Exhibit A, in suit, and ask you if any licensee of your company to whom equipment has been furnished by your company was ever furnished with an applicator or a head of the construction of any one of the several forms shown in this patent.

A. You mean identical to drawings in this patent?

Q. 1133. I am referring only to the applicator head 270 which is the device for delivering paint to the field. I mean the construction of the head. Has any licensee been provided by you with an applicator head such, for example as the v-shaped member 13, the member 113, the member 213 or the member 313?

A. Was your question whether or not we have supplied heads to licensees that are identical to those pictured in the drawing?

Q. 1134. Of the v-shaped section shown in those pictures that I have identified.

A. That are identical?

Q. 1135. Well, have you supplied any that are v-shaped?

A. Is your question now have we supplied any that are v-shaped?

Q. 1136. Applicator heads similar to or identical to those I have identified.

Mr. Hume: Do I understand your question did any licensee use that type of head under the license?

Mr. Meroni: First I am asking if he supplied any.

A. Any identical or similar to?

Q. 1137. I don't care whether they are identical or
271 not, but whether they were of a v-shaped cross-section.

A. Yes, we have supplied some heads that are v-shaped in cross-section.

Q. 1138. To whom were they supplied?

A. I believe our standard atomizing bells and disks, many of them employ a v-shape in cross-section.

Q. 1139. Let me put the question this way: as I understand it, the standard head is a rotating head. These heads are all stationary. Have you ever supplied any licensee with a stationary applicator head for use in your No. 2 system?

A. No, I believe the stationary applicator head is v-shaped in cross-section and a licensee used what was copied by the licensee from one he saw in our laboratory and made by him.

Q. 1140. Who was that?

A. Mr. Curtis Simmons.

Q. 1141. He used a solid v-shaped blade with a reciprocating supply, did he not?

A. Yes.

Q. 1142. He didn't use a hollow head in which he dis-

posed paint like you do in all of these forms of the Starkey Patent, did he?

272 A. The stationary head that he used was not hollow.

Q. 1143. With that one exception, haven't all your licensees been supplied with the rotating type of head, either in the form of a bell or a disk?

A. I believe that is correct. I feel quite certain it is correct.

Q. 1144. And even in the case of Mr. Simmons, he is no longer using the reciprocating type feed device but he is using one of your standard rotating head devices, isn't he?

A. He is using rotating disks, I believe.

Q. 1145. Now, I call your attention to the license forms that you have here before you. I believe your Counsel has a copy there and I particularly call your attention to the form 428 which has been numbered as D-23. I understand that that is the first printed form of license used on your No. 2 system, is that correct, sir?

A. If our Counsel so advises me I am sure it is.

Mr. Meroni: May we understand that is the first printed form?

Mr. Hume: That is our understanding.

Mr. Meroni: On the No. 2 system?

273 Mr. Hume: Yes.

Q. 1156. Now, referring to that form—strike that question—first let me ask you this: what part did you personally have to do with the making of changes which appear from time to time in the numerous license agreements typified by these forms which your company supplied in its answers to the interrogatories?

A. My role usually was in hearing the opinion of Counsel.

Q. 1157. By Counsel, do you mean both house counsel and outside attorneys?

A. Could be one or both or either one or both and after hearing what they might suggest, deciding whether or not their suggestion had sufficient merit to warrant changing the agreement.

Q. 1158. Did any of the other officers such as Mr. Harold Ransburg or Mr. Gregg Ransburg sit in on some of these changes that were discussed?

A. Some of them were discussed with the other officers but generally I would make the recommendation that the agreement be changed from what it had been to some new proposal and practically in every instance that recom-
274 mendation was followed. I cannot now think of any instances where the recommendation was not followed.

Q. 1159. These licenses were quite important to your company. They were the major source of revenue, were they not?

A. They are.

Q. 1160. Each time you made a change, did you make a recommendation to the other officers and was there a unanimity of approval before the change was finally put into effect?

A. I believe that most of these changes, I made them without even consulting the other officers.

Q. 1161. Did you ever have any disputes among yourselves as to any of these changes which Mr. Gregg Ransburg had to arbitrate?

A. Had a lot of disputes about making changes in which he has arbitrated and which Harper Ransburg has arbitrated also.

Q. 1162. Well, if it was some fundamental change I would assume, since these licenses were a major source of revenue of the company, that you didn't take the sole responsibility? You got their approval, did you not,
275 or attempted to?

A. As I said, I recall no instance when they did

not follow my recommendations and on the majority of these I did not even ask their views.

Q. 1163. Now, this form, as well as many of the other forms, contains the statement that, "Ransburg furnish certain special equipment." Did you presuppose before even the issuance of the license that the licensee would request the equipment?

A. In what instances?

Q. 1164. Any instance, where you got up the license form before it was ever offered to a licensee.

A. Yes, it was my supposition that the licensee would want us to furnish the equipment, want to require us to do so.

Q. 1165. Or rather, was the language adopted on the basis that your company did not want to grant any license unless it did furnish the equipment?

A. No, it was not adopted on that basis.

Q. 1166. You had no way of being sure when you drafted the form that every licensee was going to come in and say, "Furnish us with equipment or we won't take the license," did you?

276 A. No, I had no way of being sure of that other than what always happened previously.

Q. 1167. These forms of licenses that your company got up under your direction were not intended for any specific people? They were intended for general use, weren't they?

A. What do you mean?

Q. 1168. You didn't get them up with specific licensees in mind at the time you prepared the drafts, did you?

A. Of the form?

Q. 1169. Yes.

A. Well, they were prepared for what we considered

the average licensee and as you noted a little while ago, there were some typed forms from time to time, typed licenses.

330 Q. 1356. Now, referring to paragraph 11 having to do with future inventions in the same form, 428, it provides among other things for the granting of a royalty free, non-exclusive assignable license with the right to sublicense under any inventions or improvements with respect to coating apparatus and methods employing any such inventions. You are familiar with that provision, are you?

A. Yes, sir.

Q. 1357. Are you aware of the fact that this was the first form where that provision was included, and I mean by that the first printed form? I am not asking you to check all of them but I am asking you if you are aware of the fact that that was so.

A. I am certainly willing to take your word for it and will agree with you.

Q. 1358. The forms will speak for themselves but I am wondering if you had any particular knowledge as to
331 the inclusion of that paragraph 11 in the form 428.

A. I have knowledge of the fact that that was included in form 428.

Q. 1359. Now under this same provision, the user or the licensees are obligated to make the same transfer of license up to two years following the termination of the agreement. In those cases where agreements have been terminated with licensees, have you gone out and checked to see whether or not the licensees have complied with that provision?

A. No, sir.

Q. 1360. I mean by you, the company.

A. No, in no instance has that been done.

Q. 1361. Now, let's refer to form 430 which I believe is Exhibit D-25 in the answers to the interrogatories. You have that before you?

A. Yes, sir.

Q. 1362. Referring specifically to the same paragraph having to do with future inventions, which I believe there is No. 11, the form was, or the provision was broadened
332 to include subject matter usable in any way. The word "usable in any way", those words were inserted, which I do not think appeared in form 428 or in form 429.

A. Yes, sir.

Q. 1363. Do you have any recollection as to why you broadened it out? So as to include inventions usable in any way with the methods and apparatus for the electrostatic atomization of liquids or coating with electrostatically atomized liquids?

A. I believe that may have been because, or let me put it this way—I believe because we were finding it advantageous and desirable to improve fluid supply systems over and above any that we knew of previously and I presume that meant something such as that. I don't know, really.

Q. 1364. Now, as far as you know, with reference to these provisions having to do with the future inventions in these forms, have you ever had occasion to complain to any licensee for failure to live up to the provision?

A. No, sir.

Q. 1365. As far as you know, the licensee has lived up to the provisions?

333 A. As a matter of fact, the provision never amounted to anything either way.

Q. 1366. I am not asking you that. . . .

A. To my knowledge, no licensee ever made any development and the fact that you may have noted, why, it was only in the agreement for a relatively short period of time.

Q. 1367. Could it have been because there was no incentive for the licensees to make improvements?

A. I do not know. However, it is my opinion that the amount of improvements made by licensees under any of these printed forms either before future inventions were removed or after it was removed, has been exactly the same, which is zero.

Q. 1368. Have you gone out in the field and checked all 700 installations to see whether each and every licensee has made any improvements?

A. No.

Q. 1369. So that you are not basing your opinion upon an actual observation of what the licensees did?

A. No, but I feel sure if there had been much along those lines, why at least some of it would have come to our attention.

* * * * * *

6 PLAINTIFF'S EXHIBIT LLLL.

The deposition upon oral examination of HAROLD P. RANSBURG, a witness produced and sworn before me, E. Clifford Powell, a Notary Public of Marion County, State of Indiana. This deposition was taken on behalf of the plaintiff commencing at the hour of 9:30 o'clock, A. M., on September 17, 1957, at the Marott Hotel, Indianapolis, Marion County, Indiana.

* * * * * *

36 Q. 134. Were you aware of the fact that some of these prospective licensees on the airless type of license were objecting to turning over patents to your company?

A. Yes.

Q. 135. Tell us some of the companies that objected to that.

A. Well, I know that Hotpoint did and I think they were largely the larger companies.

Q. 136. You recall whether General Electric did?

A. I don't specifically recall it. I think that their objection was they were insisting on the terms that we gave Hotpoint.

Q. 137. Do you have any recollection of why after you had issued your first airless type of license agreement, which I showed you a moment ago, around April of
37 1951, you later changed the patent clause broadening it out?

A. Which is the patent clause?

Q. 138. Well, in this agreement D-23. It is paragraph 11 entitled "Future Inventions".

A. That was later broadened out to include something other than future inventions.

Q. 139. Later broadened out and still more recently I believe it was omitted in some agreements? I am trying to find out what you know about that, if anything.

A. Well, I know that initially we included it because we wanted some field experience during the final development stages and those who gained the initial advantage of it, we felt should give us their future inventions that came about through their use of the equipment or process.

Q. 140. Did Mr. Edwin Ransburg have anything to do with that?

A. Yes.

Q. 141. Who was it that first proposed it be included in the agreement? Was it Mr. Downer or Mr. Ransburg, or who?

A. I am not sure specifically. I would expect that
38 it was Ed.

Q. 142. Well, that was rather a radical change in the procedure over what you had done in the air type. Didn't you have conferences before you did that?

A. Yes, I am sure we did.

Q. 143. Can you recall anything that transpired in the conferences relative to the pros and cons on that proposition?

A. No. I know that we were all in favor of it initially. I don't think there were any arguments about it.

Q. 144. You say initially. Later on were some of you not in favor of it?

A. Yes.

Q. 145. Who?

A. I was one. I guess I was the major one.

Q. 146. Made the agreement much less palatable?

A. To particularly larger customers, yes.

Q. 147. Corporations do not like to assign their research to another in consideration of a license, do they?

A. We weren't considering this involving research, a research project.

Q. 148. Well, patents represent research, do they not?

39 A. Sometimes.

Q. 149. And to the extent that they do, you were obligating these companies that might take out patents on improvements emanating from research, to assign it to your company, is that correct?

A. If it emanated from research. We had in mind those things that would be developed through the normal course of usage.

Q. 150. By assign, I mean transfer a license or whatever is provided.

A. It is a non-exclusive license.

Q. 151. I didn't mean to say that they assigned the patent, but gave you a non-exclusive license. I believe you adhere to that in all of your forms, do you not?

A. Just on the No. 2 process.

Q. 152. However, you were to have the right to sublicense, were you not?

A. Yes.

Q. 153. Now, I gather from what you said it was your feeling or the feeling of your company, as expressed by its representatives who attended these conferences, that initially any licensees that had the advantage of the early developments of your No. 2 or airless system should assign, or rather give you a license as to improvements, isn't that correct?

A. You mean were they all in agreement?

Q. 154. Yes.

A. Yes, depending upon how far you go in the word "initial".

Q. 155. Well, as a matter of fact, aren't some of those licenses like D-23 still in force and effect?

A. I wouldn't know. I don't know any of the numbers.

Q. 156. I call your attention to a half dozen or so that I believe—

A. (Interposing.) You mean some still operating?

Q. 157. Yes.

A. Yes, I presume so. I don't know the form number of the agreement.

Q. 158. Well, it is D-23 and it is Form No. —you see the form number on there?

A. Yes.

Q. 159. What is that?

A. 428.

• • • • •

Q. 175. Well, on this equipment that you furnished to these licensees where you retained title in every case, did any licensee ever ship the equipment back to you and then continue the license?

A. I don't believe so, no.

Q. 76. Now, isn't it a fact that you circularized your licenses with letters of the order of this one dated July 15, 1953 to Acme Visible Records, Inc. of Crozet, Virginia?

(The document in question was handed to the witness.)

A. Yes.

Q. 177. And as I understand your previous answer, no licensee elected to take advantage of your offer and continue the license without the equipment?

A. I believe that is right, yes, sir.

Mr. Meroni: Let's mark this letter for purposes of
45 identification as Binks' Exhibit S.

(Binks' Exhibit S marked for identification.)

Q. 178. You are actively in charge of the granting of licenses and the furnishing of equipment on the so-called No. 2 airless system, are you not?

A. I would rather say I am actively in charge of sales.

Q. 179. Well, would you say that the principle phase of your business is selling customers on taking these licensees?

A. Yes.

Q. 180. And am I correct in my assumption that if they take a license with the equipment that they pay as much as $10,000 down for the equipment?

A. No, they didn't pay anything for the equipment. We call it an initial fee.

Q. 181. How much is that initial fee?

A. Could be $10,000.

Q. 182. Does it run more than that?

A. It can.

Q. 183. What is the average at this time?

A. Well, it would be, I would judge you mean of
46 all of our licenses or the No. 2 process?

Q. 184. The No. 2 process.

A. It would average between eight and ten thousand dollars, I would think.

Q. 185. Now, if the customer had taken advantage of your offer such as that expressed in this letter of July 15, 1953, would you have refunded that eight or ten thousand dollar down payment?

A. No. We don't call it a down payment.

Q. 186. You call it an initial payment?

A. Initial fee.

Q. 187. But they have to put that on the line before they get the license, don't they?

A. No.

Q. 188. They don't have to put it on the line?

A. They commit themselves to it.

* * * * *

51 Q. 222. According to the answers to the interrogatories given here by the Ransburg Company, there is no one in the field at the present time that manufac-
52 tures and sells to the trade an airless electrostatic system outside of your company, is that correct?

A. I believe that is correct.

Q. 223. As a matter of fact, since your first, or since you first commenced your work on this type of system, with the Enamel Sign Company in Chicago, down to the present time, have you run across anyone, any company at all or any person at all that has manufactured and supplied to the or through the trade any airless type electrostatic systems?

A. I don't know of any.

* * * * *

83 Q. 396. I hand you a series of eight, make that seven, letters allegedly written at different times by your company to customers and ask you if you can identify them.

A. Yes, I think I can identify them as letters we sent out.

Q. 397. What was the occasion of your sending out that type of a letter?

A. We wanted to be sure that all of our customers were aware of the fact that they could have a license from us without our supplying the equipment, if they wanted it.

Q. 398. Providing they would return the equipment that you had rented to them, is that right?

84 A. We didn't rent them any equipment.

Q. 399. Well, in your agreement with them you charged them monthly fees, did you not, for the equipment which you had title to?

A. Charged them monthly fees.

Q. 400. What would you call that if it isn't rent?

A. We call it monthly fees.

Q. 401. Well, if you rent a home, would you call that a monthly fee, too?

A. If I rented a home I think I would call it rent.

Q. 402. But you abhor the word "rent," is that right?

A. No.

Q. 403. In these seven cases the letter appears to be substantially identical with the exception of the amounts involved in some instances. No, I am mistaken about that. I believe they are all identical with the exception of the party to whom they are addressed and the identification in the agreement, is that right?

A. I think that is probably true, yes.

Q. 404. And when these letters were sent out, did you sincerely feel that any of these customers would forego their investment of some eight or ten thousand dol-

85 lars in equipment and return the equipment to you and just take the license?

A. I think your figures are wrong there.

Q. 405. Excuse me. I am basing it on what you told me as to what the initial fee was.

A. Well, in 1953 most of these customers would have

been using the No. 1 process and you are asking about the No. 2 process this morning.

Q. 406. Well, you were already selling, you were already selling licenses with the No. 2 process in 1953, were you not?

A. Yes. That is why I think the records will show whether these are No. 1 or No. 2 processes.

Q. 407. You wouldn't know offhand without consulting the records, as to whether or not they were No. 1 or No. 2?

A. I think I might recognize some of them.

Q. 408. You may look at them if you wish.

A. This Ainsworth is No. 1, I know. Alside is also No. 1 and Peninsular was No. 1 and I expect that perhaps all of these were No. 1. I say perhaps. That is purely guesswork. I think A. P. Parts might have been No. 1.

86 Q. 409. You don't mean to convey the impression these customers in the first instance don't pay substantial initial fee in order for them to receive the equipment from your company?

A. I would call it substantial, yes, sir.

Q. 410. And if they had returned the equipment to you as suggested in these letters, they would not have received a refund of that money, would they?

A. No.

Q. 411. Was this form of letter prepared by and with advice of Counsel?

A. I am sure it was.

Q. 412. Did you have any conferences with anybody in your company relative to the subject of this letter, and more specifically with regard to developing a record where it would appear that you were not forcing the customers to keep the equipment?

A. Can I rephrase the question my own way?

Q. 413. Yes, answer it in your own way.

A. I object to the word "appear," which makes it look

like window dressing because it has always been our policy to permit them to have that. This was an attempt to
87 make sure that everybody was aware of the policy.

Q. 414. Why were you so anxious to have them aware of it if they weren't aware of it in the first instance?

A. I think in the natural course of selling very often salesmen neglect to say some things that perhaps they should.

Q. 415. Now, isn't it a matter of fact that even in the case of your sales representatives you even advise them as to what forms of letters to use in writing the customers?

A. No, they didn't write any of those letters.

Q. 416. I mean, as to letters they did write?

A. No. If it was a form letter they wouldn't have anything to do with it. It would come out of Indianapolis.

Q. 417. Is it just strange coincidence that in almost every instance of a license, where a license was tendered, the salesman said, "We understand that you wish this type of agreement rather than one under which we do not furnish these additional items"?

A. Those are never signed by the salesmen.

Q. 418. Who are they signed by? This is signed by John E. Maxwell.

88 A. I retract that, then.

Q. 419. I have another one signed by Stone.

A. Those are the transmittal letters.

Q. 420. Is it strange coincidence they all use the same language?

A. This was a form.

Q. 421. That form language was by and with advice of Counsel too, was it not?

A. I feel sure it was.

Q. 422. As a matter of fact, in going through your files, in every instance where I found this form letter used, I

was not able to find a single instance where the customer indicated in writing in any way that he wished to have the equipment.

A. You mean the correspondence leads you to believe that they did not want the equipment?

Q. 423. I didn't say that. I said as far as the correspondence shows there is nothing in the correspondence to indicate that the customer solicited the equipment. You know of any instance where a customer in writing solicited the equipment?

A. The equipment alone?

Q. 424. Yes.

89 A. No.

Q. 425. Or any instance where the customer solicited both the license and the equipment?

A. You mean as specifying both the license and the equipment?

Q. 426. Yes. Do you know of any correspondence where a customer came in and said, "We want to have your equipment and we want also to have a license"?

A. No, but I think that would be tantamount to asking for a car without wheels on it.

Q. 427. I appreciate that is the way your program has been developed, but what I am trying to find out is if there is any record to substantiate that. You know of any record to substantiate that at present?

A. You mean of their asking for a license and equipment?

Q. 428. Yes.

A. The inquiries don't come or arrive in that form.

Q. 429. From the correspondence, it would appear that your salesmen made a call on the customer, sold him on the advantages of your process and then tendered this letter of transmission with the statement, "We under-

90 stand that you wish this type of agreement rather than

one under which we do not furnish these additional items." Is that a logical assumption?

A. Yes.

Mr. Meroni: I would like to identify the first group of letters as Exhibit Z-1, letter dated May 27, 1953, addressed to Ainsworth Manufacturing Company; Z-2, letter dated May 27, 1953, addressed to Air Maze Corporation; Z-3, letter dated May 27, 1953 to Alside, Incorporated. The next one to the A. & P. Parts Corporation, May 27, 1953; Acme Visible Records, Inc., May 27, 1953 and Algonquin Corporation May 27, 1953 and Peninsular Metal Products Corporation; and I want to correct a statement I made that these letters were dated differently. They are all dated as of the same date.

(Binks' Exhibits Z-1 through Z-7 inclusive marked for identification.)

Q. 430. (By Mr. Meroni.) Mr. Ransburg, that group of letters that I have just identified is typical of those
91 you circulated among your customers, is that right?

A. Yes.

Q. 431. And by that I mean customers that are both users of your No. 1 and No. 2 systems.

A. Yes.

Q. 432. Now, I have a slightly different form of letter dated July 15, 1953 but worded in substantially the same way, and ask you if that was a variation of the same form that was sent to customers.

(The document in question was handed to the witness.)

A. Yes, I presume so.

Q. 433. You recognize that as a copy of a letter taken from your company's files of one of your customers?

A. Yes.

Q. 434. I now hand you what purports to be a reply to that letter dated July 22, 1953 and your company's reply

thereto dated July 28, 1953 and ask you if you can identify those.

A. Yes.

Q. 435 That is correspondence of the Company, is it not?

A. I am sure it is, yes.

92 Q. 436. In this letter from the Altex Corporation, which you have just identified, addressed to your company, attention of E. M. Ransburg, Mr. Johnson, the President, says, "The letter proposes a change of contract no doubt to conform with precedent set up recently in the Patent Courts, but since the expression in your letter is over-simplified, we would appreciate your sending us a rough draft of the proposal you are making to others." Have you any idea what he meant by "precedent set up recently in the Patent Courts"?

A. I have no idea.

Q. 437. Did you have any discussions or any one in your company have discussions with Counsel as to what was meant by that?

A. I didn't have.

Q. 438. Now, the reply written by Mr. E. M. Ransburg makes no reference to that statement and I wonder whether it was decided, as a mater of company policy, to ignore it. Do you know?

A. I know as a matter of company policy we don't attempt to interpret legal things to customers.

Q. 439. Well, you have a house attorney that can 93 help you in that regard, can't he?

A. Yes.

Q. 440. I don't take it that you are a lawyer, are you, sir?

A. No, sir, I am not.

Mr. Meroni: I would like to mark for identification these three letters, one as AA dated July 15, 1953 addressed

to Altex Corporation; the reply from Altex Corporation dated July 22, 1953 and Ransburg's reply dated July 28, 1953, in the order that I have identified them.

(Binks' Exhibits AA-1, AA-2 and AA-3 marked for identification.)

Mr. Hume: What is the date of the Ransburg reply?

Mr. Meroni: July 28, 1953.

Q. 441. (By Mr. Meroni.) Now, I hand you three other letters, each of which contains that expression I quoted to you before, "We understand that you wish this type of agreement rather than one under which we do not furnish these additional items," and I ask you whether these
94 are letters that were sent out to your customers and also whether they involve a standard form that you used.

A. Yes, I presume these are.

Q. 442. The writer, Mr. Maxwell, is one of your salesmen?

A. Yes.

• • • • •

97 Q. 453. What I am trying to find out is how all of your salesmen were instructed to be sure to include in a letter this statement, "We understand that you wish this type of agreement rather than one under which we do not furnish these additional items."

A. I think that was no doubt oral instructions.

Q. 454. And I assume that was pursuant to a program your company adopted upon advice of Counsel?

A. I presume so.

Q. 455. In the light of a letter, say, of the example such as this one from the Altex Corporation dated July 22, 1953, would you say that there was never any concern on the part of your company relative to the question of whether your licensing program was in conformance with good law?

A. No, I don't think there was concern on our part.

Q. 456. I take it then that nobody ever in any way even alluded to or whispered to you that there might be some question about violation of the anti-trust laws?

A. I think the only one I can recall is shortly after the IBM situation a couple of years ago.

Q. 457. Well, I am not trying to find out what
98 Counsel told you, but I am trying to find out whether as a matter of fact there was concern on your part and whether you took it up with Counsel.

A. I think it was no doubt discussed.

Q. 458. As a matter of fact, you have had quite a few law firms over these past five or six years or so representing you, have you not?

A. Yes.

Q. 459. I believe we could say there is at least five different firms? Wouldn't you say so?

A. I believe so, yes.

Q. 460. In a licensing program as extensive as that pursued by your company involving over 700 licensees, is it a fair assumption that you consulted repeatedly with Counsel in connection with that program?

A. Yes, I am sure we did, at any time there was any alteration in the agreement or any change.

Q. 461. I believe the record shows that there was something like 40 or so different changes? Do you so understand?

A. It seems like at least that many.

Q. 462. In addition to outside counsel, I understand you had at least two lawyers working for you at the
99 Company, Mr. Downer and Mr. Johnson, is that right?

A. Yes.

Q. 463. How long has Mr. Johnson worked for you?

A. I would guess four or five years.

Q. 464. Have they had as part of their duties in your

employment the assignment of also keeping you appraised of interpretations of the anti-trust laws as they were handed down by the courts from time to time during the last five years?

A. I don't believe either of them is relied upon as authorities.

Q. 465. You have gone to outside counsel for advice principally in that respect?

A. I am sure we have.

Q. 466. But they were available if you wanted some quick advice, is that right?

A. Yes.

Q. 467. During the noon hour, in addition to picking out this letter, Exhibit BB-5, which you previously referred to as being the one having the ink change, from the Western Tool & Stamping Company file, I also picked out five other pieces of correspondence and I ask you if you can identify those letters as being part of the official records of the company.

A. Yes, I believe they are.

Q. 468. Would you examine them again and state whether they are a typical type, whether they embrace a typical type of correspondence between yourself and a licensee?

A. You want me to answer that as a group?

Q. 469. Do it whichever way you want it, whichever way you believe is best from the standpoint of your answer.

A. The question, I guess, refers to our correspondence, doesn't it?

Q. 470. Well, answer it as to your correspondence first and if you can state whether the type of letters you got from this particular licensee is of the same general order as you got from other licensees.

A. Yes, I would say they are generally typical.

Q. 471. I notice in the letter there spelling out

the terms, the initial fee is stated. What is the amount of that fee there? Is it eighty some odd hundred 101 dollars?

A. $8,600.

Q. 472. That falls within the eight to ten thousand dollar range that you testified about this morning?

A. I didn't mean that would be the range. I meant that would be the average. The average would fall within that.

Q. 473. This falls within the average?

A. Yes.

Q. 474. Now, as I understand it, if this particular customer, in response to a letter such as V-1, was to decide to return the equipment to you and continue with the license, that the customer would lose the initial fee of $8,600?

A. When you say "lose," you mean he would not have it refunded?

Q. 475. Yes.

A. No, he would not have it refunded.

Q. 476. I also understand from the answers to the interrogatories that the fee that you initially charged fully embraced all of your cost of the equipment that was furnished, is that correct?

A. Yes.

102 Q. 477. Did that fee, as a general rule, also represent a profit to the corporation in addition to its cost on the equipment that it made?

A. You mean—it did not represent a profit to the company.

Q. 478. In other words, was the fee based solely on your cost or did it involve other factors such as overhead and share of expense for research and development?

A. No, it is based on the cost of equipment.

Q. 479. Just the actual shop cost of the equipment without any over-ride?

A. The fee is based on that. It is not that actual cost.

Q. 480. It includes more than the actual cost?

A. Yes.

Q. 481. What does it include over and above the cost?

A. We never attempted to itemize what it includes and have never billed it in that way.

Q. 482. How do you arrive at that figure?

A. We arrive at it by a formula that we worked out, based on the cost of the equipment.

Q. 483. Does that formula make a certain allocation 103 for overhead?

A. No, it doesn't allocate anything.

Q. 484. Well, can you tell us roughly what the formula is and how you arrive at the cost?

A. We arrived at the cost of the equipment by studies from Ernst & Ernst.

Q. 485. I expressed that erroneously. I mean how you arrived at the figure you quoted the client as the initial fee.

A. Well, we have a standard amount for each item that is supplied and we have a sheet that the salesman runs down and supplies that quantity of item and extends it and totals it to arrive at the initial fee.

Q. 486. That initial fee represents your cost plus something else?

A. Well, it is based on the cost and it is more than the cost.

6 PLAINTIFF'S EXHIBIT MMMM.

The deposition upon oral examination of EMERY P. MILLER, a witness produced and sworn before me, E. Clifford Powell, a Notary Public of Marion County, State of Indiana. This deposition was taken on behalf of the plaintiff commencing at the hour of 2:30 o'clock, P. M., on September 18, 1957, at the Marott Hotel, Indianapolis, Marion County, Indiana.

* * * * *

18 Q. 68. Now, Mr. Miller, you have made reference to a book. I have been handed one by Ransburg's Counsel and ask you if you can identify it and if so, tell us what it is.

A. Yes, this is a book which I kept at the Ransburg Company in 1943.

Q. 69. May I refer to it a moment, sir?

19 A. Yes.

Q. 70. Excuse me.

A. Surely.

Q. 71. There is an entry on the back of the front cover, "Research and Development Record, Electric Coating Division, Harper J. Ransburg Company, Indianapolis, Indiana." Is that in your handwriting?

A. That is my lettering, yes, sir.

Q. 72. How did you happen to keep that record?

A. I came to the Ransburg organization for the purpose of directing their original research and development and as such, I kept a book of this type to record such ideas as were thought of by various members of the organization, to date them and to specifically make of record those ideas and thoughts or inventions that might have been made.

Q. 73. Did you do that on your own volition or were you instructed to do that by management?

A. This I do not recall specifically.

Q. 74. But in any event, you did keep such a record in the course of your duties?

A. That is correct, sir.

Q. 75. Now, Dr. Miller, you said this book would refresh your recollection as to the date when you saw the paint brush. Can you refer to any entries that are of assistance in that regard, and if so, would you please do it?

A. Yes. The last entry on page four of this book dated 10/29/43.

Q. 76. Counsel has furnished me with a photostatic copy of that entry so you do not have to use the whole book, but we will assume you are referring to Exhibit V-1 when we talk about page four.

A. All right, sir.

Q. 77. Isn't there really two entries there under that date?

A. Yes, there is one entry numbered 10 and another one numbered 11.

Q. 78. Are both entries in your handwriting?

A. That is correct, sir.

Q. 79. Is everything in your handwriting with the exception of the initials AS?

A. That is also in my handwriting. Everything on that entry is in my handwriting.

Q. 80. And "EPM" of course is your initials?

A. That is correct.

Q. 81. Just so we don't misread your entries which are in longhand, I wonder if you would read it into the record.

A. "10/29/43, entry No. 10, Al Starkey suggested using the detearing action from the bottom of a brush as the atomizing agent to spray items passing under this arrangement. See figure."

Q. 82. And then there is a figure below that and you drew that figure, too?

A. That is correct.

Q. 83. And is there some nomenclature over to the left of the figure with an arrow?

A. That says, "Paint entering a pipe."

Q. 84. Now, over to the left there is some writing abbreviated, drawing 4307, is that right?

A. That is correct, sir.

Q. 85. That seems to be in a lighter—

A. (Interposing.) It is in red pencil on the original.

Q. 86. In the photostat it appears lighter.

A. That is correct, yes.

Q. 87. Is that in your handwriting?

A. That is right.

Q. 88. Did you apply that drawing 4307 on the date of the entry or at some other time?

A. At some other time.

Q. 89. You applied the red entry at some other time which also includes the number five?

A. That is correct, sir.

Q. 90. Now, over to the right of the illustration there appears to be the initials A. S. And you applied that?

A. That is correct.

Q. 91. Now, will you read the second entry below the illustration?

A. This is entry No. 11 and reads, "Some device for coating objects internally should be considered and worked out. Signed EPM."

Q. 92. Was that your thought or was that Mr. Starkey's thought?

A. That, I think, came about as a result of a discussion between the two of us; probably his extension of this idea that he had.

Q. 93. Getting to the paint brush for a moment, what

did Mr. Starkey specifically tell you he had done that occasioned you to make the entry?

A. Mr. Starkey had been working with others of our organization constructing an exhibit which we planned
23 to take to the metal show to actually illustrate the use of our electrostatic process now referred to as the No. 1 process. That exhibit comprised a platform and a voltage supply and grid system and a control for the voltage supply. A platform was made of wood and we were assembling it in the laboratory in preparation to trying it out before actually taking it to this demonstration.

Q. 94. And that power pack—

A. (Interposing.) It had a voltage and control panel, etc.

Q. 95. Now, may I ask how much voltage was it capable of creating?

A. That particular pack had an output of around 85,000 volts.

Q. 96. Do you remember that was a pack made by the Darling Company?

A. That was not.

Q. 97. That particular one was not?

A. No.

Q. 98. Do you know where it was made?

A. That particular pack was made in our own laboratory.

24 Q. 99. I didn't mean to interrupt you. Will you proceed with what Mr. Starkey told you relative to the paint brush that led to your making this entry?

A. Mr. Starkey came to my office and advised me that in the process of painting this platform he had observed that the brush that he was using actually could be used as a coating operation in connection with applying the coating material on the brush over onto the charged surface of the grid or onto the control panel itself.

Q. 100. Did he show you anything that he coated?

A. At that moment he did not show me anything he coated.

Q. 101. Did he show you something at a later time?

A. At a later—that he coated by this method, you mean?

Q. 102. Using the paint brush.

A. Yes, there was a later one that Al showed me that he had coated using the paint brush.

Q. 103. This is the piece of paper which he showed you?

A. This is the piece of paper which he showed me. I actually saw this.

Mr. Hume: The witness has identified Binks' Exhibit B.

25 Q. 104. You actually saw that being coated?

A. That is correct.

Q. 105. And was that at or about the time of this entry?

A. This is dated 11/5/43 as compared with the 10/29/43 of the entry that you refer to.

Q. 106. Tell us exactly what you saw or observed on 11/5/43 when that piece of paper was being coated from the paint brush.

A. The paint brush was actually dipped in the coating material and held over this sheet of paper and the potential created between the brush and the paper, and this section which is removed here, actually was the initial globs that dropped off the brush in advance of the application of the voltage, actually to the brush and when the voltage was applied. the coating material left the brush in the form of this fine spray and was collected on the sheet as shown here.

Q. 107. Now, was the sheet attached in some way to one electrode of the generator?

A. It was placed on one electrode of the generator.

Q. 108. Was that a plate?

A. In this particular case it was a plate, yes, sir.

26 Q. 109. And was there another electrode of that generator in some manner related to the brush?

A. That is correct, sir.

Q. 110. Was it attached to a metal part of the brush or something?

A. It was attached to the handle of the brush.

Q. 111. Was it a wooden handle?

A. Wooden handle, that is correct.

Q. 112. Wood is a conductor in such a field, is it not?

A. It could or cannot be, depending upon its moisture content.

Q. 113. In this particular case it was—

A. Apparently.

Q. 114. And you say that the voltage being generated was somewhere around or in the vicinity of 85,000 volts?

A. We had such packs available in the laboratory at the time. I am not certain that this particular sample was prepared with a voltage of that size, or one of the larger ones which could have gone to 100 kv.

Q. 115. In any event, the field that this paint brush was disposed in, and the paper was disposed in, was a high voltage electrostatic field?

27 A. That is correct.

Q. 116. Now, what did you observe with reference to the paint on the tips of the bristles of the brush, if anything?

A. I observed that it left there in a fine spray, almost an invisible spray as a matter of fact, and accumulated on the paper.

Q. 117. Did the paint leave the tips of the bristles or did it leave the supporting body of the bristles? I mean the shank that you use or the base that you usually mount the bristles in, which is sometimes metal, did the paint leave that or the tips of the bristles?

A. It left the tips of the bristles as opposed to the metal binder that confines the bristles at the top, that is correct.

Q. 118. Were you able to see a multitude of strings emanating from the bristles, or was it too fine?

A. It was evident that each bristle had become a source of such atomization.

Q. 119. And in your opinion, where did the atomization occur, in the field or at the tip of the bristles?

A. At the tip of the bristles, in my opinion.

28 Q. 120. Did you operate that experiment in a sufficiently dark area that you were able to see whether there was any corona discharge?

A. Not this particular experiment we did not.

Q. 121. In your opinion, was a corona discharge inherent at the voltage you were using?

A. In my opinion, I believe there would have been such a discharge there, yes.

Q. 122. Now, you read a moment ago this article of 1887 of the London, Edinburgh and Dublin Philosophical magazine where an experiment was performed by disposing a dish with wax in it in an electrostatic field, did you not?

A. Yes, I did.

Q. 123. Can you tell us from the standpoint of what you observed when you saw Exhibit B being coated, whether there were any differences between the paint emanating from the tips of the bristles and what you would expect from wax emanating from the edge of a saucer?

A. I have never actually carried out that experiment so I couldn't accurately describe what took place there in that case.

29 Q. 124. Well, in the brush, with bristles, you would necessarily have defined points at the tips of the bristles, wouldn't you?

A. That is correct.

Q. 125. And those points would be spaced the distances that separated the bristles, isn't that correct?

A. That is correct.

Q. 126. In any event, you considered that phenomena or experiment that you observed of sufficient moment to recall it at this time?

A. Referring to this time, you mean now?

Q. 127. Yes.

A. That is correct, yes.

Q. 128. And you considered Mr. Starkey's previous informing of you of this experiment that he had made to record it on December 29, 1953, or rather I should say October 29, 1943, is that correct?

A. That is correct.

Q. 129. I believe Mr. Edwin Ransburg stated that he had not participated in that paint brush experiment, wasn't present. Do you recall whether he was or not?

A. I do not believe that he was present.

Q. 130. Now, when you observed this piece of paper, Exhibit B, being electrostatically sprayed from a paint brush, did you have any idea as to what caused the spray to form?

A. It is rather difficult at this point to say what ideas I had in light of the knowledge which I have acquired since then.

Q. 131. It might have been somewhat influenced by it and you might still think it occurred at that time?

A. That is correct.

Q. 132. A lot of things have transpired since then?

A. Certainly have.

Q. 133. The notation or entry you made on October 29 refers to the brush as the atomizing agent and what I was trying to ascertain was whether you observed anything that bears on this word atomizing.

A. The entry that was made here at the time the word

"atomizing agent" was used, of course was given to me by Al Starkey to describe the phenomenon that he had observed and having worked in the field of paint, I am sure that Al used that term, "atomizing agent" synonymously with other types of coating agents which would be used
31 to break up paint that would be normal in the process being used for application of that paint to surfaces.

Q. 134. Would you say it was correct that you considered at the time you observed the experiment with Exhibit B that an atomizing action was occurring?

A. Definitely.

Q. 135. Where did that atomizing action occur?

A. It is extremely difficult to say where it occurred because the visual observations would not be too accurate, certainly, but it occurred. It left the fiber as a liquid and occurred on the paper as a finely atomized coating material, so I assume you have to assume it occurred at the end of the fiber.

Q. 136. You mean at the tips of the fiber bristles?

A. Since that was the last point it could be observed as a continuous liquid.

Q. 137. In the general area of what you might expect would be the corona discharge area?

A. That is correct.

Q. 138. Corona discharges, of course, were an old subject with you at that time, were they not?

A. That is correct.

32 Q. 139. That was a phenomenon that was well known at the time you attended the universities?

A. The phenomenon was well known but little understood.

Q. 140. Still little understood, isn't it?

A. That is correct.

Q. 141. There are many theories as to what transpires

but I don't believe there is any accurate accounting for it, is that right, as far as you know?

A. It depends on who you would like to believe in the field, I think.

Q. 142. Would you say that the paint that was delivered to this Exhibit B was atomized, dispersed and applied to the paper?

A. Definitely.

Q. 143. Was that all done as a function of the electrostatic action?

A. Yes.

Q. 144. Without any other means?

A. That is correct.

Q. 145. In other words, once you effected atomization—

A. (Interposing.) I might say that probably since the arrangement was such that this paper was below the
33 brush, there might have been a component of gravity involved but the phenomenon we are speaking of here basically occurred due to the electrostatic field.

Q. 146. So that if we say the paint was atomized, dispersed and deposited on the paper, it was all done as a result of the electrostatic atomizing action? There wasn't any other means employed?

A. It was done as the result of the application of the electrostatic field between the two elements, that is correct.

Q. 147. Now, below this, this first entry, 10, and to the right of your notation, drawing No. 4307, there appears to be an illustration. It is rather crude and I wonder if you could tell us what it was intended to portray.

A. It was intended to portray a trough or a conveyor into which coating material, indicated here as paint, was conducted by that pipe and when the trough or v-shaped device filled up, that coating material was led to the small elements which simulate bristles or extension of some kind at the bottom of the trough and the objects passing under

that are illustrated as being flat sheets on a conveyor,
34 or lines there indicating the passage of coating materials from the bristles to the sheet.

Q. 148. Would that to you, in the light of your previous experience with electrostatically spraying on the No. 1 system, signify to you that it was intended to be some field there?

A. The field certainly is not shown in this indication but that certainly conveyed to me that idea now and then, and at any time in between.

Q. 149. And where was it intended that one electrode should be connected?

A. One on the object and one to the trough or the element at the bottom of the trough.

Q. 150. And the thought was if you had a high voltage electrostatic field between those electrodes you would atomize, disperse and coat those pieces on that conveyor?

A. That is correct.

Q. 151. There is nothing indicated here that at that time you had in mind using any controlled rate of delivery of paint to the trough? Was there anything discussed at that time relative to that with Mr. Starkey?

35 A. No, I would imagine that that was not discussed specifically, although anybody acquainted with the art of coating will realize, I think, that you would have to have a controlled rate or otherwise you would build up too much coating or too little.

Q. 152. You would use rate control regulators on the No. 1 system sand have for years?

A. I had.

Q. 153. The company had?

A. People had controlled fluids, certainly, yes.

Q. 154. Common practice to use diaphragms and pumps and other means of that sort for that purpose, wasn't it?

A. To control delivery rate of fluid?

Q. 155. Yes.

A. Yes.

Q. 156. It was also common practice to use a high voltage pack in electro-static coating systems, since for example your No. 1 system, isn't that right?

A. I don't know whether you call it common knowledge but in the case of the No. 1 systems you had voltage packs involved.

Q. 157. They were high voltage packs?

36 A. Correct.

Q. 158. They were in use in the field, were they not?

A. That is correct.

Q. 159. And would you say that it was also known in the field, in connection with your own practices, that you could use a conveyor to convey articles into the No. 1 system?

A. That is correct, yes.

Q. 160. Then what if anything was considered by you and Mr. Starkey at tht time to be sufficiently new about the idea that would cause you to record it?

A. The concept of using electrostatic forces alone to atomize, disperse and deposit these materials.

Q. 161. Did you consider there was any novelty in having a trough for holding the paint?

A. Certainly not. The trough would not be novel.

* * * * * * *

42 Q. 187. I believe you made some reference, if I am not mistaken, to the word "detearing." Did that have anything to do with this device?

A. They were trying to coat this device by a detearing method.

Q. 188. You remember whether they used paint or shellac on it?

A. That I can't tell you.

Q. 189. What is a detearing method, as you understood it at the time of the device?

A. The detearing method, as the name implies, is the method of deglobing or detearing, as we coined the word, to illustrate the removal of tears or excess material from the articles which had been dipped or flow coated.

Q. 190. Sort of a reverse action from coating, isn't it?

A. Well, the object has already been coated, actu-
43 ally when you detear. It is dipped or flow coated and it is coated completely and you use only the detearing operation to remove that material which you don't want on there.

Q. 191. The surplus?

A. The surplus.

Q. 192. And you electrostatically throw the surplus, so to speak, to some other object to collect it?

A. Well, you throw it off the object to get rid of it. That is the basic thing. You can do detearing while whirling it, too, effectively.

Q. 193. But if you do it electrostatically, do you usually pull the excess material off electrostatically?

A. The object is usually carried on a conveyor that is grounded, as is one side of the voltage supply usually, and the object is passed over or in the vicinity so a field will be created, so that it will cause the liquid to leave.

Q. 194. The liquid which would leave would be transmitted to the other charged object?

A. It might fall off on the floor, depending upon the field. If the grid is like the edge of the table and has the object, as it approaches the grid the material will
44 leave it and drop off on the floor, possibly.

Q. 195. Have you ever seen them detearing where they would throw the excess paint or liquid onto a plate or something?

A. Throw it onto such a plate?

Q. 196. Yes.

A. Well, the field about the object is usually created between the object and an expanded metal grid, and if the grid happens to be in the road when the material comes off, it will get it.

Q. 197. If the grid is charged?

A. If the grid is charged and if the particles would be attracted to that rather than fall to some other object.

Q. 198. It would tend to coat the grid, in other words?

A. It would accumulate on there, certainly, that is right.

* * * * * *

66 Q. 306. Now, will you refer to the next entry in that sketchbook having to do with this so-called paint brush development?

A. The next entry is on the top of page 12 dated 3/23/44, numbered 32, and reads: "Al Starkey ran additional tests on the detearing atomizer to ascertain if new design would produce as good results and to determine particularly if the various types of atomizers would work on liquid wax."

67 Q. 307. Did you witness any of that work on wax? Or with wax?

A. I don't recall specifically that I did.

Q. 308. Do you know whether they ran any tests with wax, of your own knowledge?

A. I am sure they did run such tests but I don't recall that I observed any of them.

Q. 309. What kind of wax, beeswax?

A. I don't specifically know the type of wax that was used on these particular tests that are referred to here.

Q. 310. Do you remember whether the wax was liquid, at room temperature?

A. No, I think they had to heat it.

Q. 311. Could have been beeswax, couldn't it?

A. I presume so.

Q. 312. Who made this entry?

A. I made this entry.

Q. 313. And are those your initials?

A. Those are my initials.

Q. 314. From what you observed, during this development following the paint brush experiment, did it make any difference whether you used paint or wax or lacquer
68 in tests?

A. Some materials worked better and some worked worse than others.

Q. 315. They would all atomize to a certain extent, wouldn't they?

A. Yes.

• • • • •

98 Q. 468. Would you say that the No. 2 system is capable of handling all known types of liquids?

A. No.

Q. 469. In coating objects?

A. No.

Q. 470. Would you say it would be more accurate to say it only handles a small portion of all of the liquids that are available?

A. All of the liquids that are available certainly encompasses a very large field and I would say it handles
99 most of the coating materials, most of the materials which are used in coating processes in the industry.

• • • • • •

107 Q. 508. Now, Dr. Miller, did you have anything to do with the submission to the patent attorneys of any descriptive matter leading up to the preparation of the application for which this Ransburg Patent 009, Exhibit C, was issued?

A. Yes, I think I did.

Q. 509. Now, doesn't that patent show substantially the

same type of electrostatic applicator only with other electrodes added to it for setting up a secondary field?

A. As what?

Q. 510. As in, say figure three.

A. Your question, doesn't it show the same type of applicator. As what applicator?

Q. 511. As you wrote up for use in the preparation of Starkey Patent 536.

A. No, this applicator involves a continuous slot along the bottom of it.

Mr. Meroni: Would you please read the last question?

(The last question was read by the reporter as follows: "Now, doesn't that patent show substantially the same type of electrostatic applicator only with other electrodes added to it for setting up a secondary field?")

Q. 512. From the standpoint of the operating principle of it, isn't it the same? Doesn't it have the same type of operation with a supplemental or secondary field?

A. This is an electrostatic applicator head with additional electrodes extended on the end of it.

Q. 513. If you left out the end electrode, 330, and 329 in figure No. 3, would you get electrostatic atomization, dispersion and depositing of the paint or liquid on the object?

A. Yes.

Q. 514. Now, it is interesting to note that in this instance the spacing between the applicator and the article is spelled out as being in the neighborhood of 14 inches and the size of the feeding conduit, 12, is spelled out, as being in the nature of 3/16 OD and the voltage range is spelled out as being in the vicinity of 22 KV to 125 KV, but perchance do you know why in the case of this patent all of those factors were given and they were not given in the case of your description submitted for the

preparation of the application on patent No. 536, Exhibit A? You are free to look at this patent, sir.

A. I know that they are written by different attorneys. That might have something to do with it.

Q. 515. Did you, in the instance of the submission of any material to the attorney in the case of patent 2658009, spell out those factors to him?

A. No, but I think between 1944 and 1948 I had a much better appreciation of the requirements of the patent application than I had previously.

• • • • •

119 Q. 530. Dr. Miller, yesterday you identified your memorandum of December 10, 1943, Exhibit XX, as having been prepared for submission to the patent attorneys. Do you recall that memorandum?

A. Yes, sir.

Q. 531. You refer in that memorandum to an atomized spray. When is a spray atomized?

A. When it is broken up.

Q. 532. How fine does it have to be broken up in order to be said to be atomized?

A. I think in the connotation of the word in the trade, certainly the significance would be that any material that is broken up beyond a bucket state, you might say, would be considered to be atomized.

Q. 533. To what trade do you allude?

120 A. The painting art.

• • • • •

132 Q. 600. I believe yesterday you said that some of the deteared material would deposit on the grid in the 133 detearing process.

A. That is correct.

Q. 601. To that extent the grid was coated, wasn't it?

A. Over the area which the particles landed, yes.

• • • • •

138 Q. 628. (By Mr. Meroni.) Fundamentally, would you say it is true that the Ransburg No. 2 electrostatic
139 painting system differs from the No. 1 system in that it omits the use of compressed air in the electrostatic spraying action?

A. The processes are completely different. When you ask me to describe the fundamental difference, I would say that the lack or the fact that the No. 2 process does not use air is one of the fundamental differences.

• • • • •

154 Q. 696. Have you ever tried any device in the electrostatic field where you had two electrodes spaced from each other to set up a field similar to what you had in your No. 1 system, say of comparable area wherein you discharged a jet of liquid adjacent the high potential electrodes in the area of the corona discharge? Have you ever tried anything like that?

A. Yes.

Q. 697. With what result?

A. With the result that the material atomized off the device.

• • • • •

2 PLAINTIFF'S EXHIBIT NNNN.

DONALD C. HOWARTH, called as a witness in behalf of the Plaintiff herein, having been first duly sworn, was examined and testified as follows:

Direct Examination by Mr. Meroni.

Q. Please state your name.
A. Donald C. Howarth, H-o-w-a-r-t-h.
Q. Where do you reside, Mr. Howarth?
A. Indianapolis, Indiana.
Q. What is your post office address?
A. Rural Route 14, Box 704, Indianapolis 20.
Q. How old are you, sir?
A. I am forty-two.
Q. By whom are you at present employed?
A. By the Ransburg Electro-Coating Corporation.
Q. In what capacity?
A. Well, I am in charge of the installation and service and purchase and manufacture of equipment, the sales engineering laboratories, and drafting.
Q. How long have you been employed by that company?
A. Since January, 1948.

• • • • •

5 Q. Is it your understanding that the No. 2 process is an improvement in that it does not have to make use of any air?
A. Yes.
Q. Is it also your understanding that the No. 2 process has gradually supplanted the No. 1 system?
A. Yes. It hasn't completely supplanted it, but it's gradually doing that.
Q. Well, roughly to what extent would you say it has supplanted it at the present time?

A. Are you talking about new sales or what?

Q. Outstanding licenses.

A. Well, it would be a very rough guess on my part, but I would say somewhere in the neighborhood of twenty-five to thirty-five per cent of the outstanding licenses.

Q. You mean that only twenty-five per cent of the outstanding licenses are on the No. 2 systems or do you mean that only twenty-five per cent are on the No. 1 system?

A. No. I mean that twenty-five per cent of the existing No. 1 licenses at the time the No. 2 process came out, twenty-five to thirty-five per cent of those licenses, were replaced with the No. 2 process.

Q. Would you say that as much as seventy-five per cent of your outstanding licenses as of the present time are on the No. 2 system?

A. Well, probably. I would estimate probably seventy per cent.

• • • • •

Q. What is the organizational set-up of your company as far as the actual work in granting licenses is concerned? By that I mean what is the sales set-up.

A. Well, as I explained earlier, after you go through the process of determining the suitability of a process for the prospect's use and the time comes to send a license agreement out to the prospect, it is sent out with a form letter to the prospect. Then he signs it—that is, assuming he signs it—and then returns it to us, where it goes to the people who handle the legal phase of it; and then, assuming that it is satisfactory with them, we in turn sign it and return them their copies.

• • • • •

Q. Well, let's take a particular customer that your company is about to survey, or is in the process of making a survey on, with the view of ultimately licensing

that customer. Tell us just what is involved, what is done, if you can, in somewhat more detail than you did before.

A. Well, first of all, the salesmen will attempt to get him to send parts to our sales laboratory, production parts.

17 Q. Well, let's stop at that point. I am assuming that the salesman must have made a contact with the prospective licensee—

A. That's right.

Q. (Continuing.) —in order to obtain those parts.

A. That's right.

Q. He contacts the licensee or the prospective licensee and tells him about your equipment or what you have?

A. Yes.

Q. And then he suggests that parts be sent to your company so that you can demonstrate the efficacy of your systems?

A. Well, we wouldn't necessarily do that unless, after making a survey in his plant, it looked like he would use a sufficient amount of coating material and his production requirement was such that it would lend itself to the use of our process.

Q. Then the salesman must first make a survey in the prospective licensee's plant in order to determine whether or not it would be profitable to license that concern, is that right?

A. Well, we would either make it in his plant or have sufficient information from the customer so that we could establish that fact, yes.

18 Q. And then does he prepare some sort of a report to your company, telling you about this survey and why this customer might be a good prospect for a license?

A. Yes. As a matter of fact, he would send in what we call an engineering data sheet, which has certain information which we require in order to set up in the labora-

tory to run the job in accordance with the customer's requirements or the prospect's requirements.

Q. Do these engineering data sheets contain comparisons of what that customer is then doing with what you hope to do with your process?

A. Well, for the most part, they show what he is presently doing, giving adequate clearances such as oven clearances and washer clearances and the clearances he would have in the spray zone to have them where he was coating.

They would also show, for the most part, how much coating material he is using, the types of coating materials, the baking temperatures, the different types of parts, the quality requirements that the customer or prospect wants or needs to meet, and usually a summary of what he hopes to accomplish or what the prospect's main interest is, such as labor savings, better quality, a new coating system or material savings, that type of thing.

Q. Do any of these surveys take into consideration the use by the prospective customer of equipment other than your own equipment?

A. You mean equipment he might presently have?

Q. Or equipment that he might purchase elsewhere.

A. It may be mentioned, yes. I mean, in other words, he may mention that he is considering some other equipment or something of that sort or that he has other equipment in his plant at that time.

Q. Well, I don't think I got my thought across to you. I will phrase my question a little differently.

Do any of these engineering data sheets ever contemplate that the prospective licensee would purchase or acquire from a different source than your company airless electrostatic spraying equipment?

A. Of course, I don't see them all, but I would say that of the ones I have seen I haven't noticed anything to that effect.

Q. Well, as a matter of fact, do you know of any other company in the field, or anyone that was in the field prior to the filing of this suit in 1956, that was supplying any airless electrostatic spraying equipment?

A. No, I don't.

Q. Have you ever seen any engineering data sheets where the prospective customer was contemplating building its own equipment for doing that and only taking a license under the process patent?

A. No, I haven't.

Q. I would take it then from your answer that as far as the airless No. 2 system is concerned you know of no instance where your company granted a license and the licensee was permitted to use its own or someone else's airless electrostatic equipment.

A. That is right.

Q. Then the salesman submits an agreement or a license to the prospective licensee, including the license under patents and provisions for the furnishing of this equipment? Is that the procedure?

A. Well, I am not sure of the exact wording about the license under patents and so forth, but we submit the agreement on our standard agreement form.

Q. Well, that not only includes fees for the use of the process but also includes fees for the use of the equipment that is furnished?

A. That is correct.

Q. The fee for the equipment is called an initial fee, isn't it?

A. Well, the initial fee embraces more than just the equipment. The cost of the equipment is included in the initial fee or is covered in there.

Q. What else is included in the initial fee?

A. Well, specifically I can't tell because I don't know,

but I would assume that a lot of other costs are included in there.

26 Q. Well, the records bearing on that subject are in your custody and would show what the figures are, is that correct?

A. Well, I don't know that the initial fee, to the best of my knowledge, is not specifically broken down to cover such a percentage of this cost and that cost and so forth. I don't think there are any records of that nature; at least, none that I am aware of.

Q. Well, you have more or less of a standard initial fee, don't you?

A. Oh, yes, we do.

Q. And I believe in some cases it was $8,000, and while I don't know, my recollection is that it's $10,000 now. What is the fact?

A. Well, the initial fee depends on the installation and the amount of equipment supplied for the installation and it will vary anywhere for the No. 2 process from 7500 on up and it could be considerably above that amount for a given unit.

Q. What is the highest amount that you know of?

A. For a single unit I would estimate somewhere around fourteen or fifteen thousand dollars. That's for a single unit.

Q. And that is for the equipment owned by your company and furnished by your company under this agree-

27 ment?

A. Well, the equipment would be included in the initial fee.

Q. But it's your equipment?

A. Yes, that's correct.

Q. It's always your equipment?

A. Yes, that's right.

28 Q. According to this letter, you did, as a part of your duties then, send out license agreements to prospective licensees, is that correct?

A. Well, only in the event that I happened to work with a prospective licensee if he happened to some to Indian-
29 apolis or something of that sort. That is not normally my job. I am not normally in the sales department, although I work there occasionally.

Q. Well, you are acquainted then with the sales policies of your company?

A. Oh, yes.

Q. And the customers, the prospective customers for a license, come to the company and they are referred to you sometimes, you say Now, when?

A. Well, in the event that the salesman who would normally handle them would not be in Indianapolis or in the event it might be a special application or something of that sort that they weren't familiar with.

Q. Well, have you, in a number of instances, participated as the salesman in trying to interest the licensee?

A. Yes, yes, I have.

Q. Now, how did you become familiar with the sales policies of the company?

A. Oh, primarily through bulletins or oral information.

Q. Well, does the company have meetings with its salesmen?

A. Well, not very frequently. We have had, oh, probably not more than one or two that I can recall since
30 I have been there.

Q. Have you attended some of those meetings?

A. Yes, I have.

Q. So that, when you testified as to the procedure of the company in contacting prospective licensees and in working out eventually an ultimate license with them, you

were basing that upon actual experience that you have had in effecting some of these licenses?

A. Well, to this extent: That I wouldn't normally go out and contact or seek out a prospective licensee. About the only time I would handle such a licensee would be if it was referred to me by the sales department or if an existing customer, for example, might call me on a special problem for a new installation.

In other words, I wouldn't be in the sales department, since I would not go out and try to locate the prospective licensees in the field.

Q. But in order to carry on that work for the company you have to be as familiar with the sales policies and the terms of the licenses and agreements as the salesmen?

A. Oh, yes, that's right, yes. Yes, sir, that is correct.

31 Q. Now, in the case of this Grand Sheet Metal Products Company, do you recall whether Mr. Zadoff called on you?

A. I belive—and this is strictly recollection, but I believe—that he wished to visit Indianapolis in connection with additional equipment and the salesman who would normally handle him was not in Indianapolis at the time and I took care of him when he came there.

Q. I notice that this form letter, like all the others I have seen, contains this statement: "We understand that you wish this type of agreement rather than one under which we do not furnish these additional items."

Was that statement standard?

A. Yes, it was.

Q. Who laid down the policy that that should be included in every letter that was sent out transmitting an agreement?

A. Well, I don't know that any one individual laid it down. I assume that it came from our legal group.

Q. Well, you had to, in this instance, modify the form letter to fit in with the particular customer's requirements, did you not?

A. Well, I would have to look at the letter again to
32 see that.

Q. Yes.

A. I would say the only difference in the form letter would be the serial number of the agreement and the fact that it's TV and air conditioning cabinets. That in the first paragraph, I would think, would be the only difference.

Q. Aside from this statement about the understanding of the customer wishing this type of agreement, did you personally have any understanding with Grand Sheet Metal Products Company or Mr. Zadoff in that regard or was that just standard form?

A. I missed your question, I believe.

Q. Well, I mean, in this particular instance did you have an understanding with Grand Sheet Metal Products Company that this company wanted this type of agreement rather than one on which you did not furnish the equipment?

A. Yes, I understood they wanted our equipment.

Q. Who gave you that understanding, who expressed that to you?

A. Oh, I am sure it would be Grand Sheet Metal. Mr. Zadoff probably.

Q. Well, have you got anything in writing on that?

A No, I wouldn't say so. I mean, I wouldn't know.
33 There might be something in writing, I assume.

Q. You say you assume so. Are you just guessing because this was your standard practice or do you have specifically a recollection of discussing that with any particular person?

A. No. He came to us to get our equipment.

Q. Yes. But, did he express to you that he wanted this very type of agreement?

A. Oh, I don't know. I don't believe he expressed that opinion. I don't think he knew of the form of the agreement as such.

Q. Then the only reason that that was included in your letter was because it was the standard practice of your company to include such a provision in letters of transmittal to customers?

A. That's right.

* * * * * *

34 Q. How did you go about making the computations that appear on this price sheet?

A. Well, after running our tests and determining
35 what equipment was required to properly coat the TV cabinets, we, simply filled in the quantities and used the multipliers listed on the worksheet here to arrive at the total figure.

Q. How many units were involved?

A. This is one unit, one voltage pack.

Q. Who determined the unit prices that are printed on this sheet?

A. Oh, I think that those were determined partially by myself and partially by a Mr. Whisten based on our costs of manufacture and equipment.

Q. Did the figure include only costs or did they include anything for pr fit?

A. Those figures include cost, burden, and some profit as determined by a study made by Ernst & Ernst, accountants. In addition there is a lump over-all sum on top of it, over and above all that, so, that the figures, the total figures, represent more than the cost of the equipment by far. In other words, it is not just the equiment cost there.

Q. Well, could you state roughly how much more percentagewise would be represented in the figure that would

be over and above the cost? I don't mean to pin you down. If you can, give us some rough idea.

A. I would say—well, let's see. I would say over
36 cost, burden, and profit, all told it's probably a figure of two and a half times that, between two and two and a half times.

Q. That is, the fee that you would charge the customer or licensee for the equipment would be two and a half times the actual cost?

A. In that particular instance I would say it's probably two to two and a half times. Yes, very close to two and a half.

Q. What would you say would be the average for your No. 2 licenses where you furnished the equipment?

A. The average fee?

Q. The average multiplier. Would it be two and a half or would it be less or more?

A. Well, it would probably be in the neighborhood of two and a half.

Q. Now, there is one item here that says, "If reciprocating, add: For length of stroke 36 inches or less, $500; 36 inches to 60 inches, $1,000; over 60 inches, $1,500." What does that relate to?

A. Well, if a reciprocator is required by the user to do the job properly, on each reciprocator, depending on the stroke length as you have just read there, we add that additional amount to our initial fee.

37 Q. Was that added regardless of whether you supplied the reciprocator or not?

A. Yes. We don't supply the reciprocators.

Q. Does the customer or licensee know that you are charging him in that over-all lump figure for the reciprocator?

A. Yes, he generally does.

Q. How is he advised of that, by letter?

A. Well, sometimes by letter and sometimes orally

Q. I now hand you this form, sales bulletin 132, dated June 15, 1954, comprising two sheets, identified as Exhibit III-1, and ask you if you are familiar with that bulletin.

A. Yes, I am.

Q. That bulletin was issued in the June preceding the November when you had this correspondence with Mr. Zadoff?

A. Yes, I would say so, yes.

Q. Now, does that bulletin refresh your recollection as to what the practice of your company was as far as advising your clients or customers as to what went into these initial fees?

A. Well, my recollection on that hasn't changed. I would frequently show a customer the sheet exactly as it's written here.

38 Q. The last sentence of the bulletin—that is, the first page of it—says, "It is not contemplated that these reasons or any detailed breakdown of the initial fee should ever be given the customer."

A. Yes.

Q. Did you comply with that instruction?

A. Well, I would say not.

Q. How did it happen that you did not comply with the instruction?

A. Well, it's just a difference in selling technique, where some people would advise a customer maybe along these lines and others would not. Now, I think that most of our salesmen would tell the customer, for example, that if he is going to use a reciprocator with a 36-inch stroke or less the additional initial fee would be $500 and that if it's more than that it would be $1,000, and so forth.

Q. Well, do you have any letters in your custody wherein you have ever so advised a customer?

A. I can't recall of any offhand, but I expect there are some.

Q. Did you, in this particular instance, in your dealings with Mr. Zadoff, specifically advise him of this breakdown?

A. Well, I couldn't tell you whether I worked this
39 price out right in front of him or not. Frequently, I would.

Q. Well, in this particular instance you are not prepared to state then that you did show him the breakdown?

A. That is correct.

Q. So that, regardless of whether the licensee was advised or not, it was the policy of your company to charge the customer in the initial fee for the reciprocators whether they were furnished or not?

A. No, not to charge him for the reciprocator.

Q. What?

A. To charge him a fee for the use of the reciprocator. We didn't charge him for the reciprocator as such.

Q. You made a charge if he acquired the reciprocator elsewhere?

A. Right, but it had no relationship necessarily to the cost of the reciprocator as such.

Q. Your company was not equipped to furnish reciprocators?

A. No. We furnished a few reciprocators in the very beginning until outside suppliers were found who would be better equipped to manufacture and make the reciprocators.

40 Q. As I understand it, a reciprocator is something for reciprocating the emission head. Is that correct?

A. That is correct. That moves the disc and moves it up and down, vertically, or it can be laid sideways or horizontally, for that matter.

Q. So that the head can traverse the work?

A. That is correct.

Q. I now hand you this letter, Exhibit III-4, which I understand you wrote, dated November 3, 1954, to Mr. Zadoff, and ask you if you can identify it and, if so, to tell us anything you know about the subject.

A. This letter more or less summarizes the tests which were conducted during the visit of Mr. Zadoff and two others from his company to Indianapolis to witness our tests on TV cabinets and air conditioning cabinets.

It gives the mileage figures, showing how many cabinets we obtained per gallon of paint, the coating thickness from the standpoint of quality, and also enclosed with the letter were drawings showing the layout which we proposed they use for the installation.

Q. Does that refresh your recollection as to whether you saw the tests?

A. Oh, I saw most of the tests, I know. I wouldn't 41 be there all day necessarily, but I'm sure I saw most of the tests.

Q. Well, you saw Mr. Zadoff and the representatives?

A. Yes, I did.

Q. So that the letter was based on your own firsthand knowledge?

A. That's correct, yes.

Q. Now, on the first page of this letter you say, "Their price for a 36-inch remote control hydraulic reciprocator, which will allow the reciprocating stroke to be adjusted without stopping the conveyor line or the reciprocator, is approximately $1,600 f. o. b. Los Angeles."

Did you obtain that figure from the company you referred to, Lee Welding and Engineering Company?

A. Yes, I did.

Q. This letter makes no reference to your making a charge of $500 for this reciprocator to be purchased elsewhere, and now I would like to ask you if you know of

any other letter to Mr. Zadoff that you wrote where you made any reference to it.

A. I can't think of any. But this letter doesn't make any mention at all of the initial fee or any charges, as a matter of fact.

Q. This letter also makes reference to a Mr. M. F.
42 Pleva. Who is he?

A. He is our Chicago representative.

Q. Do you recall in this particular instance, of your own knowledge, whether Mr. Pleva made the initial contact or whether you did?

A. I don't recall.

Q. You did in this letter recommend that if there were any further questions that Mr. Zadoff should contact Mr. Pleva in Western Springs?

A. That's correct.

Q. Do you know whether he did?

A. No, I don't.

Q. Now, the other two men or representatives that visited your plant are Mr. Koranski and Mr. Jim Scavo?

A. That's correct.

Q. Do you recall those individuals?

A. Yes, I do.

Q. They accompanied Mr. Zadoff, did they?

A. They did.

Q. Did the Grand Sheet Metal Products Company take the tendered license?

A. Yes, they did.

Q. And did your initial charge, as far as you know, for the equipment include $500 on the reciprocating unit?
43 A. Yes.

Q. That would be $500 for each unit?

A. For each unit, that is correct.

By Mr. Hume: Mr. Meroni, just so the witness won't be misled, he has already stated in his testimony that no

charge was made for the reciprocating unit as such and this charge is based on the reciprocating unit.

Are you asking whether his charge was made contrary to his prior statement that he did not make it?

By Mr. Meroni: No. If there is any question about it I will get it straightened out with him.

Q. Did you understand my question to mean that the fee included an additional $500 because the customer was going to purchase outside a reciprocator?

A. That is my understanding, yes.

• • • • •

50 Q. I hand you what purports to be another bulletin, entitled Price Schedule No. 2 Process, which has been marked as Binks Exhibit OO, and ask you if you can identify it and, if so, to state when and where that bulletin first came to your attention.

A. I would say I saw the bulletin about the date of the bulletin, somewhere in that neighborhood.

Q. The date being August 5, 1952?

A. In that neighborhood, yes.

Q. You recognize it as an official bulletin of the
51 company that was sent out to your distributors?

A. Yes, indeed.

Q. By "distributors" who do you mean?

A. Well, at that time we had two distributors, one in Ohio and this outfit I mentioned on the West Coast, the Miller Brothers Company.

Q. Well, this was also sent to the salesmen though?

A. That's correct.

Q. Who is Mr. Miller?

A. He is one of the salesmen.

Q. Emery P. Miller?

A. That's right. He is one of the salesmen. Yes, that's right.

Q. Where is he located?

A. In Indianapolis.

Q. And what is his title?

A. I would say I don't know of any title he has other than "salesman" or "sales engineer."

Q. Would you say he is in charge of sales under Mr. Harold Ransburg?

A. No, I wouldn't.

Q. The man in charge of the sales then is Harold Ransburg?

A. That is correct.

Q. Now, you became familiar with this pricing 52 schedule when it was issued, did you not?

A. I would assume so.

Q. Now, this pricing schedule in every instance includes a power pack, doesn't it?

A. Yes, it does.

Q. And, as far as you know, did the company at that time furnish the sales people with any bulletin showing how they could price where the equipment wasn't to be furnished?

A. I believe at that time, and prior to this even, that all that pricing would be done at Indianapolis. The salesmen wouldn't have the information required to properly price them.

Q. There was no bulletin issued to salesmen showing how they should price them, it was contemplated that they refer any such inquiries to the management?

A. That is correct.

Q. Now, I call your attention to two bulletins, which I believe were sent out to your sales force at about the same time, one being dated May 27, '53, identified as Exhibit YY, and the other being Exhibit NN, a pricing guide bulletin 100 of the same date, and I ask you if you can identify them and, if so, to state whether you saw them when they came out or in or about the dates of them.

53 A. I would say I say these at about the dates of the bulletins.

Q. And were they sent out as part of your regular course of business, as far as you know?

A. Yes.

Q. Sent out to the sales people of your company?

A. As far as I know, yes.

Q. And for their use in the handling of the licensing of your company's equipment?

A. That is correct.

Q. Did you have anything to do with the preparation of either that bulletin or the pricing guide?

A. No.

Q. Do you know whether the pricing guide was arrived at as a result of meetings of personnel of the company?

A. No, I can't say as to that.

Q. You didn't participate?

A. No, I don't believe so.

Q. You received copies of those bulletins?

A. Yes, I did.

Q. And you used them in your work?

A. Yes, I do.

Q. Were you aware of the fact that that pricing guide, Exhibits NN, sets forth figures for licenses with and
54 without equipment in the case of the detearing process and in the case of the No. 1 process but sets out no separate pricing for the No. 2 process without equipment?

A. Yes.

Q. So as of that date the policy of the company was that if a situation should arise where a licensee would want a license without equipment, that would be a situation that would be referred to management, is that correct?

A. You mean as far as the No. 2 process is concerned?

Q. Yes.

A. Yes.

56 Q. I hand you what purports to be another guide, a pricing guide, for the No. 2 spray process, dated July 15, 1953, and ask you if you can identify it and, if so, to state when and where the guide first came to your attention. This has been marked as Binks Exhibit JJJ-2 for identification.

A. That came to my attention, oh, just about somewhere around the date of the guide, the pricing guide.

Q. That is another one of the official bulletins or instruction sheets issued by the company for use by the sales department?

A. That is correct.

Q. Do you know whether this was the first one that was issued showing the fees for the No. 2 system both
57 with and without equipment?

A. I would say that this was the first one showing the specific fees with or without equipment.

Q. Now, in the illustration given on the first page of this guide dated July 15, 1953, it gives an example. In this example, where Ransburg supplies the equipment, the fee is $10,000, and where Ransburg does not supply the equipment the fee is $4,000 or, in other words, forty per cent of the former fee?

A. Right.

Q. In other words, am I correct in assuming that where Ransburg supplied the equipment it got an initial fee of approximately two and a half times its cost, but when it did not supply the equipment it merely got the cost of the equipment? Is that correct?

You might refresh your recollection from the memorandum, which refers to the percentage as being forty per cent.

A. Well, the forty per cent figure not only included the cost of the equipment but also it included overhead and a

reasonable profit as determined by the accounting firm of Ernst & Ernst in that study that they made, as well as installation.

• • • • •

62 Q. Well, your basis for a fee where the licensee took the equipment was two and a half times forty per cent?

A. Well, that was obviously an error, that two and a half times. As I said, that was a recollection at the time.

Q. Well, actually two and a half times forty per cent would be a hundred per cent?

A. That's right. I just had these two figures reversed apparently, the sixty and forty.

Q. Well, that price guide before you purports to make a provision where a licensee wants the No. 2 Ransburg license but does not want the equipment. Is that correct?

A. That's right, yes.

Q. Does that pricing guide, or any other pricing guide that you know of ever issued by the company or any other paper, make a provision for where a customer might want the equipment but not the license?

A. I don't know of such a guide.

Q. Do you know of any instance at all where the company has ever rented equipment or leased it or whatever you call it without at the same time granting a license?

63 A. No, I do not.

Q. Do you know of any instance where they ever offered to do that?

A. No.

Q. As far as you know, your company has never offered either to sell or lease equipment without a license?

A. That is right.

Q. In every instance where you have collected a fee for equipment you have also required the licensee to take a license?

A. Well, the fees are not broken down in any such manner, actually. We have never required anybody to take equipment.

Q. Yes. But you have never offered in any way to sell, lease, or rent equipment without at the same time tendering a license?

A. I would say that is right, to the best of my knowledge.

Q. As a matter of fact, your company has never offered to sell any equipment, isn't that correct?

A. To the best of my knowledge, that's right.

Q. I mean by that any electrostatic coating equipment.

A. Yes.

64 Q. You so understand?

A. Right.

Q. Does your company, for the most part, buy its power packs?

A. No. We assemble most of those ourselves.

Q. Do you buy the components?

A. We buy some of them.

Q. Well, do you buy any motors?

A. There isn't any motor in the power pack.

Q. Or, the energizing unit. Do you buy that?

A. You mean the motor for the bell or disc? That is what you are referring to?

Q. Well, let's take that. Do you buy that?

A. We buy parts from different places and assemble them.

Q. What does a power pack consist of?

A. Well, a power pack consists primarily of transformers, rectifier tubes, and capacitors.

Q. Do you buy transformers?

A. No. We wind some of the coils ourselves, cut our own steel and build up the cores ourselves.

Q. Do you buy any?

A. No, I don't believe we have bought any transformers as such of the type that I am talking about, the transformers that go on the voltage pack.

65 Q. You are aware of the fact that there are companies who make power packs though, are you not?

A. Yes, indeed.

Q. If a customer came to you at Indianapolis or a prospective customer or licensee, whatever you call him, and said, "Now, I would like to rent from you electrostatic spraying equipment," under the policies laid down by the company to its sales representatives and to yourself what would you have to tell that customer?

A. Well, I think I would simply refer him to management.

Q. Is it a fair statement to say that your company is not in the business of manufacturing, selling, or leasing electrostatic spray equipment?

A. Oh, I think we manufacture some.

Q. Yes. But you don't sell any of it without a license?

A. Well, that is right.

Q. You don't lease any of it without a license?

A. That's right.

Q. How do you usually get across to the prospective licensee or customer the thought that the customer, in order to have this equipment furnished, has to also take a license? How do you get that across to the cus-

66 tomer?

A. We simply tell him that there is an initial fee and monthly fees involved, that it is a licensed process. And, in fact, most of the time they already know that.

Q. Well, don't they ask you what is embraced in what you furnish for the initial fee?

A. Yes, indeed.

Q. Now, you are in charge of the records of the company having to do with costs and the like, are you not?

A. Yes.

Q. What is the major item of expense in the equipment that you furnish under any particular license agreement? Is it the power pack?

A. It would depend on the equipment to be furnished under that agreement. It might or might not be.

Q. Well, in, let's say, the typical single unit license agreement, is the power pack one of the most expensive items supplied?

A. I would answer that this way, that if you are talking about a triple head unit and you had four triple heads involved, I would say that four triple heads would be more costly than the power pack; if you are talking about a single-head unit, then I would say the power pack

67 would be more costly than the one single head.

Q. Are most of the units that you supply single-head units?

A. Most of them, I would say, are reciprocating disc units having an average of maybe two reciprocating discs, between one and two.

Q. Well, with an installation of one or two heads the power pack would be a dominant item from the standpoint of expense, wouldn't it?

A. I would say the power pack, the controls, and the pump unit would probably all run in the same general area.

Q. Are there manufacturers outside that make pumps, power packs, and controls?

A. Not of this type that I am aware of.

Q. Well, do they make a type that could be adapated?

A. I don't know of any.

Q. You don't know any?

A. No.

Q. Have you ever made it a point to check it?

A. No, I have never specifically looked for any such.

Q. Referring to this price worksheet, Exhibit III-3, which is the pricing on that sheet that includes the
68 power pack?

A. This item right down at the bottom here (indicating).

Q. "For single phase equipment at $5,500 for each unit."

Does that mean that if you have three units you would add three times that?

A. That is correct. Actually in that particular instance $5,800 was added in there. That is three-phase equipment in that particular instance, which would mean you add three times.

Q. Does this particular worksheet embody just one unit?

A. Yes, it does.

Q. Now, is there any other item on that sheet that even begins to approach the $5,500 item?

A. Are you thinking of the cost standpoint?

Q. Of the charge figured in the sheet.

A. Of the charge figured?

Q. Yes.

A. Well, the highest item on here other than that $5,800 is the $1,140.

Q. And what was that for?

A. That was for two pump units.

Q. So that, as far as this worksheet is concerned,
69 the highest priced equipment of all that is listed is for the power pack?

A. That is true, but that has no relation to the value or the cost of the power pack itself.

Q. But you figure more for that particular part or assembly—that is, the power pack part—than you do for any other?

A. Well, we put all our load in that to cover all this balance for the initial fee.

Q. Using this particular worksheet as an example, can you tell us how much of the fee that was charged, which I believe was $9,900, was actual cost?

A. May I see the sheet again, please?

Q. Sure.

By Mr. Hume: It might help the witness, Mr. Meroni, if he had a better explanation of what you mean by "cost."

By Mr. Meroni: Q. I mean the cost of this equipment apart from this loading and installation and profit and the other things that were added in afterwards, the actual factory cost.

A. Well, I would have to estimate that figure, but I would estimate it as somewhere in the neighborhood of $2,000 to $2,200.

By Mr. Hume: Do I understand your question ran
70 to the cost of the equipment, the outlay of the cost of the equipment?

By Mr. Meroni: That's right.

By Mr. Hume: And that is what you meant by that?

By Mr. Meroni: Yes.

By Mr. Hume: Did you understand that?

By the Witness: Yes.

By Mr. Meroni: Q. Now, since this Grand Sheet Metal Company job involved an initial fee of $9,900, which is pretty close to the example of $10,000 on this pricing guide, Exhibit JJJ-2, if the customer would have wanted the license without the equipment it would have paid an initial fee of close to $4,000, would it not?

A. On this basis, yes, but this is not the same comparison of equipment. There is quite a difference in the equipment, what would have been the fee if the customer took that sheet.

Q. Well, on the basis of a $9,900 initial fee for equipment, what woul dhave been the fee if the customer took the license without the equipment?

A. I couldn't tell you; I don't know.

Q. Well, can't you determine that from the pricing guide that was furnished the sales people there?

A. No, because this pricing guide was error to that
71 and covered different type of equipment than that. This same ratio would not apply to this equipment.

Q. Well, was there a new bulletin issued?

A. I believe there has been one, but I am not positive as to that. It doesn't give any specific figures though, if there had been.

Q. Well, supposing this customer had said to you, "Well, I don't want the equipment"?

A. Yes.

Q. What is the fee going to be, the initial fee?

A. Well, we'd have to sit down and figure it out.

Q. Well, how would you go about figuring it out?

A. Well, we'd actually take our latest cost studies and work it from that basis. And those cost figures are quite different, as I said before, from this figure on this one (indicating).

By Mr. Hume: The witness referred first to the figures in Exhibit JJJ-2 and secondly to the cost sheet marked as Binks Exhibit III-3.

By Mr. Meroni: Q. Well, that would be in the same general ratio, wouldn't it?

A. Not necessarily, no.

Q. Well, let's take the one that is in the example in the pricing guide, Exhibit No. JJJ-2. Can you tell me what the actual factory cost of the equipment there
72 was from that illustration or around it, in round figures?

By Mr. Hume: And here we mean the costs in the same way you meant it in the last question?

By Mr. Meroni: Yes, the factory costs disregarding all this so-called loading and installation or what have you.

A. Yes.

Q. The factory costs. You understood what I mean?

A. Yes, I do. I don't think I can in this case because I don't know at this time what the installation costs would run, what our factory costs would run, for that matter, as compared to the present time. I don't recall what those figures would have been in 1953.

Q. Well, in the other illustration of Exhibit No. III-3, as you said, the factory cost would be around $2,200. Would you be in a position to say that the initial fee without equipment would be in excess of $2,200?

A. Well, I know it would be.

Q. Have you any idea as to roughly how much more it might be? Would it be $1,000 more or $2,000?

A. Well, would you repeat the question again?

By Mr. Meroni: Read the question back to the
73 witness please. Read the last couple of questions, so we can get the tenor of it.

(Record read.)

A. I would say it would be two to three times.

Q. So from an economic standpoint, would it be your knowledge and in your records that a prospective licensee would do far better by taking the license with the equipment that by taking it without the equipment?

A. I would have no way of knowing that because I don't know what you could get equipment for, what he could get equipment for if he made it himself or what.

Q. But the fact remains that you know of no instance —at least none on the No. 2 process—where a customer has ever taken the license without the equipment?

A. That's right.

* * * * * *

75 Q. Do you remember having any transaction in 1953 with the Altex Corporation of Milwaukee, Wisconsin?

A. Yes, I do.

Q. Do you perchance recall a letter dated April 28, 1953, wherein you wrote the Altex Corporation and, among other things, said, "As you well know, the operation of the equipment and the manner in which the equipment is used, as well as the type of coating material used, et cetera, is entirely within your control and completely
76 beyond ours. This being the case, there is no reasonable basis on which we could possibly guarantee your satisfaction"?

I hand you that letter and ask you if that refreshes your recollection of your company's policy.

A. Yes, it does.

Q. Does that indicate that your company refuses to guarantee performance?

A. No, not at all. I mean, a guarantee of satisfaction depending on what he wants to do with it is one thing and guaranteeing to reproduce what we did in Indianapolis is another matter.

* * * * *

77 Q. I call your attention to another letter, dated March 23, 1954, addressed to the Webster-Chicago Corporation, attention Mr. Clarence Wallin, chief industrial engineer, written by Mr. Maxwell, wherein, among other things, he says, "For your information, our equipment is not available on the open market and, where-
78 as you could fabricate this equipment, it would cost thousands of dollars to manufacture and you would not be guaranteed its functioning properly."

Do you know anything about that subject?

A. You mean that particular letter?

Q. Well, that guarantee or this particular transaction with Webster-Chicago Corporation, either one.

A. Oh, I am familiar with the Webster-Chicago Corporation as such.

Q. I call your attention to the part I have read and ask you to read it and ask you if that correctly states the company policy as you understand it.

A. Oh, I think so. I don't see how we could possibly guarantee someone else's equipment.

Q. Now, in the records that you have custody of or in the records of the company do you have any records showing a comparison between what your equipment costs and what it would cost on the outside to obtain that equipment?

A. No, I don't believe we do.

Q. Do you know what basis then Mr. Maxwell used for stating that it would cost thousands of dollars to manufacture it?

A. No, I don't.

Q. Is there anything in your records that would
79 indicate that this type of equipment is not available on the open market?

A. That it is not available?

Q. Yes.

A. Oh, I don't know that it is or isn't.

Q. Well, I didn't ask you that, I asked you if there is anything in your records, as far as you know, indicating whether equipment of the type that you are licensing to Webcor was available on the market.

Is there anything in your records that indicates whether it's available or not available?

A. I would say there probably is not.

Q. Or, to put it another way, do your records indicate that your company ever made a survey of the market to determine whether any such equipment was available?

A. I don't know that they have.

Q. At least, you know of no such survey?

A. No; that's right.

Q. Now, here again it was pointed out that if the prospective licensee did not want the equipment the initial fee would be forty per cent of the standard initial fee. In this respect the letter says, "If a customer desires a license without our equipment, installation supervision, and replacement parts or service, the initial fee would be forty per cent of the standard initial fee quoted above."

Is that still your policy?

A. It would depend on the equipment.

Q. You have never granted any such license without equipment, so you actually can't say from experience what was the case, can you?

A. I am not sure I exactly understand your question.

Q. I understand that your company, with regard to the No. 2 system, has never granted a license without furnishing equipment.

A. That is correct.

Q. Hence, you have no actual past experience upon which to base any statement as to the forty per cent other than mere offers, is that right?

A. Oh, no. I think we have information that enables us to arrive at that, a cost information of evaluating our own cost of equipment, service, replacement parts and installation, and so forth.

Q. Well, it says here, "If a customer desires a license without our equipment, installation supervision, and replacement parts or service. * * *"

That is, without those things.

A. Right.

Q. (Continuing.) "* * * the initial fee would be forty per cent * * *."

A. Yes.

Q. If that fee doesn't embrace supervision installation, replacement parts or service, what does it represent?

A. Oh, it just represents the balance of our initial fee, the difference between the forty per cent and one hundred per cent.

Q. Well, then it's clear that this forty per cent would not represent any installation service—

A. That is correct.

Q. (Continuing.) —or any installation supervision.

A. That's right.

Q. It would not represent any replacement parts?

A. We would not say "would not represent." When you say "would not represent," you mean it does not include replacements?

Q. Would not include that.

A. You mean would not include our giving the use of replacements?

Q. Yes. And you would not give, according to this, any service.

A. Yes, that's right.

Q. And, of course, that would not include the equip-
82 ment.

A. Yes, that's right.

Q. So then, what does it include?

A. The forty per cent?

Q. Yes.

A. Well, it's just our initial fee that we charge for an installation of that type.

Q. Then it's an arbitrary fee that is not representative of any service or equipment that is supplied to the licensee?

A. That is right.

Q. And in the examples stated in Exhibit JJJ-2 dated July 15, 1953, such a fee would have been $4,000?

A. That is correct.

Q. I hand you this letter of March 23, 1954, which I have been referring to and ask you if you recall the trans-

action with Webster-Chicago Corporation or if you had anything to do with them.

A. I don't recall having anything to do with it.

Q. Do you know whether you had such dealings with Webster?

A. Yes; I know we installed equipment at Webster.

By Mr. Meroni: I would like to have this letter which was furnished to us by counsel and which was numbered 215 by ourselves in the original group of papers
83 marked for purposes of identification as Binks Exhibit LLL-1.

(Exhibit so marked.)

Q. In your work for the company have you run across any difficulties with licensees or prospective licensees relative to the so-called future inventions clause of the licenses?

A. No. I haven't had anything to do with that phase of the operations at all.

Q. Well, you have negotiated some licenses with that clause in them, have you not?

A. I couldn't answer that yes or no; I wouldn't know offhand.

Q. You wouldn't say you hadn't?

A. No, I wouldn't say I hadn't, no.

Q. You are aware of the fact that some of your license forms, such as this Exhibit D-23 (indicating), had a future invention clause in them in paragraph 11?

A. Yes.

Q. What was your understanding of the policies of the company relative to the matter of future inventions of a license?

A. Well, I don't really have any understanding on that. I simply refer that to the legal group whenever any
84 questions arise on it.

Q. Well, did you explain to prospective licensees

that they would be obligated under that paragraph to turn over inventions to the company under the provisions of it?

A. I wouldn't have myself; I would have referred any questions along those lines to the legal group, who would in turn anwser them.

Q. Do you recall any instance when you did?

A. No, I don't.

Q. Do you recall that in the instance of the General Electric Company negotiations, General Electric did not want the future inventions clause and the company proposed that in lieu thereof they would increase the initial fee from $5,300 to $9,300?

A. I only know that from having read it a couple of minutes ago for the first time.

Q. Had you ever heard of that before?

A. Oh, I think I probably heard of it, but I don't recall figures or anything like that.

Q. Well, you knew that there were some discussions at that time?

A. Yes, I have heard of the discussions on it.

Q. Now, you personally had some dealings with the Altex Corporation matter, didn't you?

85 A. That's right.

Q. Do you have any particular recollection of anything unusual about that transaction?

A. No, not offhand.

Q. Were you aware of the fact that Mr. Pleva, sales representative of your company, was involved in that transaction?

A. Yes, I believe he would be.

Q. You do recall that in that instance the customer, Altex Corporation, wanted to get a guarantee that the equipment you furnished would do a satisfactory job?

A. No. I hadn't recalled it until you mentioned it.

Q. Well, that was the letter I called your attention to awhile ago dated April 28, 1953, and in order that you may have all the correspondence on the subject that defendant has furnished us I hand you three other letters, one dated April 8, 1953, one dated April 28, 1953, and the other dated May 7, 1953, which is Binks Exhibit II-7, and I ask you to look over that correspondence before you answer the next question.

A. All right.

(Discussion off the record.)

By Mr. Meroni: Q. You have looked over that cor-
86 respondence?

A. Yes, sir, I have.

Q. Do you recognize it as papers from the files of your company?

A. Yes, I do.

Q. What did you have to do, if anything, with the transaction of Altex?

A. I worked with Mr. Altex, but I believe it was a Mr. Stapleton who came to the laboratory originally on that, and he himself witnessed what we could do and what we could not do. And, beyond that point, we possibly sent him an agreement, but I don't recall.

That was about the extent of my direct contact with them, other than my letter.

Q. Was Mr. Pleva the salesman in charge of that transaction?

A. He would be, yes.

Q. Was it the policy of your company not to contact any customer in the field unless that customer first came to you? Or, if that is not so, were your salesmen permitted to go out and contact the customers?

A. Oh, they were permitted to go out and contact customers and they frequently do.

Q. In an effort to get them interested in taking a license?

87 A. Yes, that's right.

Q. Or taking a license with your equipment, I should have said. It's the same thing, isn't it?

A. Well, taking a license, and if they want the equipment, why, they can have it.

Q. But they couldn't have the equipment without the license?

A. That's correct, to my understanding.

By Mr. Meroni: I would like to have these letters marked which have not already been marked for identification. I believe one of them has been marked and three of them have not been marked. The one dated May 7, 1953, has been marked as Binks Exhibit II-7, and I would like to have the other three marked as Binks Exhibits MMM-1, -2, and -3, in this order:

Mark the first letter, that of April 8, '53, as Binks Exhibit MMM-1; the second one, a letter to Altex Corporation dated April 28, '53, mark as Binks Exhibit MMM-2; and the other one, a letter from Altex Corporation dated April 28, 1953, mark as Binks Exhibit MMM-3.

* * * * *

94 Q. Now, I call your attention to Interrogatory 65 and the answer thereto, reading as follows:

"Has the defendant ever granted a license in the air type or airless type electrostatic spray coating fields restricted to less than all patents owned by defendant and under which defendant had a right to grant a license in such fields?

"A. Yes, every agreement authorizes the licensee to use a certain process to coat certain articles and to use certain equipment therefor and licenses the licensee under those of the defendant's patents which apply thereto but

does not license the licensee under any patent which does not apply."

When you granted licenses, what was your procedure in that regard?

95 A. Well, I don't know anything about the legal angle to that. The only thing I would do is have a license form made up and I would simply insert the items that they were going to coat and the drawing number which applied to that particular installation they were going to use and also the fees. That's all that I would do.

Q. But you never undertook in any way to spell out any patents that were applicable, did you?

A. No. I wouldn't have any idea of just which ones would be applicable or not.

Q. In other words, you were able to go ahead and consummate these licenses without having detailed knowledge as to what patents were applicable?

A. That's correct.

Q. And that was true of all your sales force, as far as you know?

A. I would think so, yes.

Q. If you had wanted to determine which of the company's patents were applicable in any particular license or prospective license, you would have had to have referred that to your patent counsel, is that correct?

A. That's right, I would have referred it to our legal group and they would have handled it, I am sure.

96 Q. But, as far as you know, in your dealings no licensee that you negotiated with was ever apprised of any specific patents that were applicable?

A. I don't recall of any, no, sir.

• • • • •

By Mr. Meroni: Q. Would you say, from the type
97 of advertising, records, and transactions that you were familiar with concerning licensees and prospective licensees, that the general policy of your company was such that if a customer wanted anything in the electrostatic field you were in a position to supply it except for possibly the solid particle coating?

A. You are thinking of coating materials now?

Q. Yes, coating materials other than the solid particles.

A. In other words, whether or not our process would do almost any type of coating materials?

Q. Yes.

A. I would say generally yes.

Q. And in your working with licensees you would be in a position to say that generally speaking, if they wanted any equipment to do the coating job, you are in a position to supply it?

A. Yes, I would think so.

Q. Well, your company is the only company in the field there is, isn't it, as far as you know?

A. As far as I know, that's right.

Q. Do you know perchance what happens to used equipment that is returned to Ransburg, if any?

A. Yes.

Q. What happens to it?

98 A. It is salvaged and rebuilt and re-used. That is, the parts that can be, of course, are re-used.

Q. In other licenses, maybe?

A. Yes.

Q. Does such equipment usually have some salvage value?

A. Yes, it does.

Q. It must be substantial enough or you wouldn't reprocess it, would you?

A. That's right.

Q. From your knowledge of the records of the company and experience in your capacity as director of technical services, who handles major servicing for Ransburg equipment furnished to licensees?

A. Well, I am not sure of the term "major" there.

Q. Well, who handles the actual servicing of the equipment?

A. Well, I would say the customer does a great deal of it.

Q. Well, do you have any men in your employ or in the company's employ that service equipment?

A. Yes, we do.

Q. How many people would you say you have in that category?

A. Oh, counting the fellow who directs, eighteen. It's a combination job, I might explain, where they do the installation and servicing, but the same people do both jobs.

Q. That comes under your jurisdiction, doesn't it?

A. That's correct.

Q. That is one of your major duties, isn't it?

A. That's right.

Q. Now, you exact fees for servicing, do you not, where you supply the service?

A. Well, we get monthly fees, if that is what you have reference to.

Q. How are those fees determined?

A. The monthly fees?

Q. Yes.

A. They are determined on the basis of the cost of the coating materials used through the equipment.

Q. You mean the more royalties that are involved the greater the fee?

A. Well, I think the greater the cost of the coating

material used the greater the fee, the greater the amount of the cost.

Q. Well, in other words, the greater the amount of fees the customer pays, the greater the service charge would be, is that right?

A. No. There is no relation between the service
100 charge and the fees paid, if that is what you mean, the monthly fees paid, if that is what you are getting at.

Q. Well, let's start over again. I wanted to know—and it's not clear to me because I probably misunderstood you—how your fees are determined for servicing.

A. Well, they are included in our monthly fees.

Q. The monthly fee that is set forth in the license?

A. That is correct.

Q. And that is pre-determined at the time that the license is granted?

A. No. The monthly fee varies each month depending on the cost of the coating material used through the equipment.

Q. But that is still pre-determined as to the ratio, isn't it?

A. Oh, the ratio is pre-determined, the exact amount is not, that is correct.

Q. Now, if the customer does any servicing, is he given any rebate on the monthly fee?

A. No, he isn't?

Q. So far as the customer or licensee is concerned, he might as well avail himself of that service, is that correct?

101 A. Well, except for this reason, that we don't agree to provide any service.

Q. Well, I believe there was a letter I read here that had something to do with servicing. Do you recall that letter?

A. Oh, I could explain it this way, that as a practice we do service the accounts within reason, but the agreement does not explicitly provide for our furnishing the service.

Q. Now, there is a letter here that I called to your attention this morning or this afternoon where you represented to the customer that he could get service from you and he couldn't get it from somebody else or words to that effect.

A. Yes, it would be a practice to give service to the customers.

Q. So even though it's not spelled out in the agreement, the fact is that you do render services for the monthly fee and the customers know that?

A. That's right.

104 Q. Referring now to this Exhibit LLL-4, which is the letter written by Mr. Pleva, I want to ask you if you know anything about the subject of this particular paragraph and, if so, to state what you know:

"I visited Mr. Clarence Wallin and explained the alternative method whereby we would license them to use our process, they to furnish their own equipment. Mr. Wallin wanted to know the monetary details of this alternate scheme and when I advised him that our basic monthly fee would be reduced from $100.00 to $80.00 and that
105 no refund on the initial fee was in the picture, he, of course, lost all further interest. In fact, he wanted to know why he had even bothered to write him concerning such a 'ridiculous' proposition."

Do you know anything about that at all?

A. I know the letter; I just read the letter a few minutes ago, yes.

Q. Well, did you have any contact at all with Mr. Wallin?

A. No, not in regard to that, nothing whatsoever.

Q. Do you know whether Webcor ever accepted the alternate proposition?

A. No; I know they didn't. They never have.

Q. Do you know whether any licensee ever accepted the alternate proposal made in the form letter of May 27, 1953?

A. None of them ever did.

* * * * *

108 Q. Mr. Howarth, as far as you know—that is, of your own knowledge—since the filing of this suit on or about September, 1956, has the company gone ahead with its licensing program without any changes?

A. Yes, sir, as far as I know that is true.

Q. And it has pursued the same program that it had before the suit was filed?

A. Yes.

Q. At least, you had no instructions to the contrary?

A. I didn't, that's right.

* * * * *

118 MILTON F. PLEVA, called as a witness in behalf of the plaintiff herein, having been first duly sworn, was examined and testified as follows:

Direct Examination by Mr. Meroni.

Q. Please state your name.

A. My name is Milton F. Pleva.

Q. Where do you reside, Mr. Pleva?

119 A. In Western Springs.

Q. Illinois?

A. That is correct.

Q. How old are you, sir?

A. I'll be thirty-seven in June.

Q. What is your educational background, briefly?

A. Well, I have a Bachelor's degree in civil engineering from IIT and, of course, all of the preliminary education prior to going to college.

Q. You are a graduate engineer?

A. That is correct.

Q. By whom are you presently employed?

A. By Ransburg Electro-Coating of Indianapolis.

Q. How long have you been employed by that company?

A. Since September of 1951.

Q. Has the employment been continuous since that time?

A. Yes, sir.

Q. In what capacity are you employed there?

A. As a sales engineer.

Q. Has that been your capacity of employment since the commencement of the job?

A. Yes, sir.

Q. Do you have assigned to you any particular area?

A. Yes.

120 Q. Will you state for the record briefly what sales area you represent for the company?

A. The State of Minnesota, the State of Wisconsin, roughly the northern half of the State of Illinois and Lake County of Indiana, and within the Upper Peninsula of Michigan, which, of course, is adjacent to Wisconsin.

Q. Are you the sole representative in this area or do you have someone else working with you?

A. Yes, there is another man as of November 1st of 1956. Prior to that time I was a sole man.

Q. Is he an assistant to you?

A. Yes. Well, we both work together in the area.

Q. Well, are you in charge of the sales office in the area?

A. I would think so, by virtue of seniority, yes.

Q. State briefly for the Court what the general nature of your duties is in your capacity as sales engineer for this company.

A. Well, basically the merchandising of the Ransburg processes; as secondary functions, the maintenance of proper relations with our existing customers, which then would, of course, include the service aspects in terms of making sure that when and if service is required it is provided by the company. That is, I don't personally
121 service any equipment, nor do I have personally any service people reporting to me or under my jurisdiction.

As an ambassador for the company, if you will, in the area, many of the accounts, of course, choose to, if they need attention, contact me locally instead of contacting Indianapolis, so I serve as a go-between, if you will, in this connection.

• • • • • •

125 Q. Now, in your sales efforts with respect to these electrostatic systems—

And they are all electrostatic systems, are they not?

A. I would say so, yes.

Q. (Continuing.) —do you make any effort to sell agreements involving the spraying of solid particles?

A. I never have. It's been my understanding that the scope of our position, our patent position, doesn't cover some of these items. In fact, I think that our agreement specifically omits certain solid particles such as flock or abrasives from deposition by our process.

Q. So that, for all intents and purposes, we can consider that your activities have been concerned primarily with the spraying or coating of liquid materials?

A. That's right, sir.

• • • • •

127 Q. Well, you wouldn't say, for example, unqualifiedly that the No. 2 system would handle the spraying of all types of liquid materials, would you?

A. Certainly not.

• • • • •

129 Q. Well, do you know perchance what the range of viscosities is that is embraced in the type of materials that can be sprayed with the No. 2 system?

A. As a general rule, we would operate somewhere in the range of between, say, seventeen to twenty-five seconds on a No. 2 Zahn. However, I can think of exceptions.

• • • • •

130 Q. Well, there, of course, would be a limit on the range of temperatures that could be embraced in this system?

A. Oh, obviously.

• • • • •

144 Q. Well, in the course of this sales pitch, when does the question come up of what you are selling? That is, in regard to whether you are selling equipment or agreements, when does that question usually enter into the picture?

A. Oh, I think that varies all over the lot. There are people, many people, that just never raise the issue at all. I mean, we maybe get them down to Indianapolis and run tests for them and perhaps at that time they become very enthusiastic about what they have seen. Now, if they want to talk about how we go about this, then maybe that is the first time that we are getting into a detailed discussion of the merchandising procedure and the relative cost for the initial engineering fee and the monthly fees and so forth.

On the other hand, there are people that know of us, of

course, and maybe some of these people, when you
145 call on them, would say, "Well you are the people that rent equipment, aren't you?" and in which case of course, you obviously answer, "Yes, we are the people that rent equipment."

And if the man follows through and asks what our methods are, then I outline our methods and explain to him that we operate under an initial engineering fee and a continuing monthly fee and that, depending on which of our processes might be involved in his particular case, we have specific merchandising procedures for those, and I try to, in general terms, outline them.

Now, on our No. 1 process it's a very simple matter to outline the engineering fee because it's set up on a basis of an empirical formula and I tell them what the empirical formula is and that "If this job gets to the point where you are down at the laboratory and watching your parts run, you can figure your own initial fee yourself because it's $3,000 basic and $300 per gun."

We don't furnish the guns, but we use that as a formula for establishing that fee and try to evaluate all aspects in this sense—I mean, if it's requested.

However, I would say this, Mr. Meroni, that as a
146 salesman I have never tried to talk about price unless the prospect insisted upon talking about price. Salesmen normally don't talk about the prices of their items unless they are asked to.

• • • • •

150 Q. In substance there, then you were selling agreements wherein the customer rented the equipment by paying an initial fee and then by paying a monthly fee thereafter the customer received a license to practice the process, is that right?

A. That's right.

151 Q. Did you perchance, as a part of your training program know, in the case of the No. 2 system, what patents were being licensed?

A. No, sir.

Q. You took it for granted that the company had patents?

A. I was told that.

Q. But that was the extent of your knowledge?

A. Well, I don't know that I was told that. I think your statement was right that I took it for granted, right. I just figured nobody would be doing all this that I saw happening down there unless they figured they had some position.

Q. Well, do you in any of your contacts, say, on the No. 2 system, ever have occasion to tell a customer what patents are applicable?

A. Well, I couldn't do that because I don't know.

• • • • •

155 Q. Well, I hand you, for example, this bulletin dated August 5, 1952, Exhibit OO. Is there any provision in the pricing guide there for the selling of a license agreement without equipment?

156 A. No, sir.

Q. Are you aware of the fact that subsequently the company did issue a bulletin wherein they specifically provided that in the case of the No. 1 system and in the case of the detearing process you were authorized to sell agreements without furnishing the equiment but that no such authorization was given in the case of the No. 2 system?

A. (No response.)

Q. In order to refresh your recollection, I hand you this bulletin of May 27, 1953.

A. Well, I certainly remember this bulletin. Now, what was your question, sir?

Q. That bulletin specifically provides for the selling of license agreements without equipment, but expressly makes no such provision in the case of the No. 2 system, as you will see if you will look under the heading "No. 2 System."

Is that your understanding?

A. Well, my answer would be yes, there is nothing under the No. 2 system that gives that, that defines how a license would be sold without equipment.

Q. Were you aware of the fact that still later you received a bulletin which specifically provided a pricing guide for use in the case of the No. 2 spray system
157 both where equipment was furnished and was not furnished?

A. Yes, I am aware of the bulletin. I saw it in this group you handed me.

Q. I call your attention to this July 15, 1953, bulletin, Exhibit JJJ-2, and ask you if that isn't the bulletin that gave you instructions as to how you could quote a customer on license agreements both with and without equipment.

A. Well, I recall the bulletin, I know it; however, this bulletin did not give me authorization to quote anything because I don't have an authorization. However, it outlined the procedure that management was going to use as of this effective date for so quoting.

Q. Well, you certainly wouldn't endeavor to sell anything where the basis of selling it would be contrary to what is in the bulletin, would you?

A. No, sir.

Q. Your selling activities were consistent with the programs outlined in these bulletins?

A. True.

Q. That is why they were sent to you, so that you would

know what the policies of the company were, isn't that right?

158 A. Yes, that's right.

Q. When, if ever, did you take up with any prospective customer a license on the No. 2 system wherein the customer did not want the equipment?

A. I never had a situation where the customer did not want the equipment and so stated.

Q. Well, in your sales efforts, did you ever apprise any customer that it could get the No. 2 system either in the form of a license by itself or a license plus equipment?

A. Yes, sir.

Q. What customer?

A. Webster-Chicago, or Webcor, as it's now known.

Q. Do you remember any other customer?

A. Well, I have advised a lot of people that you could put in a Ransburg No. 2 system and not put in Ransburg equipment, but I never, to my knowledge—

The Webcor job is the only one that I can think of where we actually clearly outlined it in a letter and gave them pricing both ways and so forth. That was because they requested that, frankly, at the time.

They converted from the No. 1 to the No. 2 and they were familiar with the fact then that this was possible and they wanted to evaluate it, so we outlined it for them

159 in detail.

The problem has been, of course, then in general discussion, if you did outline that, that the question would be probably, "Where would you get the equipment? Where can I get the equipment?" and my answer to that would have to be that I don't know. That is, there haven't been, until perhaps recently, any sources.

Q. Well, you understood there were plenty of sources for power packs, didn't you?

A. Well, I certainly didn't understand and I don't

know whether there are or not for the Ransburg No. 2 process.

Q. Well, let's put it another way: You knew as an engineer that you could purchase power packs?

A. Yes, sir.

Q. You knew that long before you came with the company, didn't you?

A. Yes.

Q. Now, with reference to this date of this bulletin, Exhibit JJJ-2, which is dated July 15, 1953, when was it that you first took up with any customer the fact that your company was in a position to offer the license with or without the equipment?

A. Your question is when was it?

160 Q. With reference to that date, July 15, 1953.

A. I don't recall, sir.

Q. Was it before or after?

A. Well, to the best of my knowledge, I don't recall.

Q. Well, actually you know of no instance where you have ever sold a license without furnishing equipment, isn't that right?

A. That is right, sir.

Q. Has it ever come to your attention in the course of your dealings with these customers that you were calling on that any of them considered the license without taking the equipment to be prohibitive?

A. Are you speaking now economically?

Q. Yes.

A. Well, the only instance that I can recall of a specific outlining of relative costs was, as I indicated earlier, in the Webcor situation, and in that situation that was not brought out, that taking the license without equipment would be prohibitive.

The problem was that they indicated complete reluctance

to go to any effort that might be involved in obtaining this equipment from other sources.

Q. Well, to put it another way, has any customer ever, in your presence, indicated that he considered the
161 license without the equipment to be economically prohibitive because he'd have to pay forty per cent of the fee anyway, whether he took the equipment or not?

A. No, sir; to my knowledge, that was never said to me.

Q. Were you aware of the fact that if the customer took a license without equipment it would receive no service, no replacement parts?

A. Yes, sir.

• • • • •

163 Q. Did you ever give a customer a side by side price comparison between deals in which Ransburg would supply equipment and in which Ransburg would not?

164 A. No, sir, not to my knowledge. I wouldn't have any basis to do that because I wouldn't know what should go in the other column, I wouldn't have any idea of what price it was. But I have made relative columns of that type at times in conjunction with other types of equipment.

• • • • •

167 Q. The fact still remains that you have never sold an agreement wherein the company did not furnish the equipment?

A. Well, that is true.

Q. Do you understand that none of the other salesmen have sold any agreements wherein the company did not furnish the equipment?

A. Yes, sir, that is my understanding.

Q. Now, from your sales experience in selling these agreements, can you give any reason as to why you have been unable to sell agreements without the equipment?

A. Well, I mean, I have an opinion. I mean, am I allowed to set forth an opinion?

Q. Well—

A. Well, I mean, I don't know but I have an opinion,

168 Q. First I am interested in facts as to anything that came to your attention.

A. Well, the situation to me seems obvious. The equipment is something that our customers want and desire. They need it. I mean, it's the thing that is the bulwark of the whole thing.

They don't want a piece of paper, they want the equipment to do this job in the plant. Therefore, they come to our lab if they are interested in a process, and assuming that we do a good job for them, they like what they see, then what they want is the tool. So there it is. So they ask how they get the tool and we tell them how to get it and they either like it or they don't like it. It's either too expensive or not economical or something and then they don't get it.

If it's a sound deal, it's like any other negotiation for any piece of equipment in a manufacturing plant. That is, they like what they see, they want it, they want the equipment.

I think that the answer as to why our agreements have all been sold with Ransburg equipment is because the equipment is certainly a very integral part of what it is that we are merchandising.

The man wants to paint on a production line and

169 you can't do that with a piece of paper, you've got to have tools.

So we bring him down there and he sees these tools and, assuming that they work—I don't mean that every demonstration proves to be successful, but assuming that it does work—and it looks like a good deal for the man, he then wants the tools and we have them, so there it is.

I think that is the reason why we have sold our agreement, if that is the right word to use, with equipment, because the customer wants the equipment.

Q. Would you say that in the process of selling these agreements you have sold the customer on the equipment and then the customer just took the license because it wanted the equipment? Is that it?

A. Yes, I would think that was right, yes, sir.

171 Q. You have referred to Webcor. Am I to understand that you contacted that company in an effort to 172 sell it your No. 2 system?

A. Well, it was actually the other way around. The company had had our No. 1 system for quite some time and contacted me in an effort to see whether a conversion to the No. 2 system would be a desirable thing, an economically desirable thing for them.

Then, yes, I called on them and worked with them and then sold them that conversion No. 2 unit.

Q. Were you aware of the fact that in May, 1953, your company circularized all of its customers with a form letter stating in substance that if a customer wanted to return equipment it could do so on a certain basis?

A. Yes, sir. You don't have to show me that letter; I remember that one well. I wasn't very much in favor of it at the time it was put out.

Q. It was sort of futile, wasn't it?

A. Well, I knew it was going to cause me personally and the other field men a lot of difficulty of people calling up and trying to find out what the hell this was all about and I couldn't even give them any good answers.

I mean, we didn't feel any too happy about it because the first thing these people would want to know was 173 "If I send you your equipment, where do I go for other equipment?" and my answer would have to be "I don't know."

And it put me in a hell of a position to say I didn't swing the idea, that they didn't ask me about management things. Well, the letter went out.

Q. And could you have added as a corollary to that "If you send back the equipment we can't give you any money back for the fee you paid"?

A. Well, sure, sir, and "You have to get it some place else and lay out some more money."

That was kind of a sad situation and I couldn't see how anybody would be interested in that.

Q. So that the record will show what we are talking about, I would like to hand you the form letter dated May 27, 1953, sent to Webcor—that is, Webster-Chicago Corporation of Chicago—Exhibit LLL-2, and ask you if that is the type of letter you are talking about.

A. That's it.

Q. That one caused you a lot of difficulty, did it?

A. Sure.

Q. I also call your attention to another letter, on the letterhead of Webster-Chicago Corporation, Exhibit LLL-3, dated June 3, 1953, and ask you if that is a letter that 174 caused you a lot of trouble.

A. Well, it didn't cause me a lot of trouble, but it certainly meant that I had to go out and see Clarence and have a session with him about it.

Q. You were advised about that letter and then called on him?

A. Yes, that's right, sir.

Q. And do you recall reporting on the result of your visit to the home office?

A. Sure. That is, I didn't specifically, but I know I sent in a letter covering my visit because I do that in the form of some type of a report basically on all of my activities.

Q. Do you have any recollection of telling the home

office that Webster-Chicago Corporation considered the new proposition ridiculous and they wondered why they were even bothered with it?

A. Yes, I do.

Q. I hand you a letter dated June 26, 1953, Exhibit LLL-4, and ask if you wrote that letter following your visit to Webster-Chicago Corporation.

A. Yes, I did write this letter.

Q. Is Webster-Chicago Corporation, in ordinary parlance, referred to as Webcor?

A. Well, not in ordinary parlance. They have
175 changed the corporate name to that in recent years.

Q. But it's one and the same thing, isn't it?

A. Oh, yes, very definitely.

Q. Did you have any other customers that were not under the collar about this form letter of May, 1953?

A. Oh, sure. Well, "hot under the collar," I don't know that I will buy that, but I had other customers that called me to find out what the hell we were talking about. I had that. In fact, I had some that just didn't understand the letter and wanted an explanation.

Q. Were you ever given any understanding by the home office as to why the letter was sent?

A. No.

Q. Were you aware of the fact that they sent out other form letters like this May 27, 1953, letter in July, 1953, too?

A. Not specifically, no, sir.

Q. How did you convince Mr. Wallin that your company wasn't trying to pull any kind of a trick on Webster?

A. I didn't have to convince him of that, sir. All he wanted to know from me was if I could tell him any reason why he should be interested in this type of proposition.
176 First of all, he wanted to know exactly what it meant —I mean, would it mean would he have to send the equipment back. I pointed out that is exactly what it

meant. Would he have any refund coming? No, he would have no refund coming.

What it would mean was that he would procure his own equipment, would have to duplicate that equipment which we had been providing in the past, and that then, but virtue of so doing and by virtue of the fact that now this was his equipment and no longer ours, he would have the responsibility for maintenance thereof, and that the monetary advantage to him would be a reduction in the minimum monthly fee from $100.00 to $80.00. That would be his gain.

He said, "Well now, for me to go out and get this equipment and pay for it, how long would it take me to amortize it at $20.00 a month savings?"

I said, "I haven't got any idea because I don't know what it would cost you to buy it."

So he said, "If we are about to do this, I am sure that the whole thing sounds ridiculous to me," and so I so quoted him.

Q. Well, in your letter of June 26, 1953, to the home office, LLL-4, you said, in the last sentence, "The meeting ended amiably with Mr. Wallin convinced that
177 we weren't trying to pull any kind of a trick."

Now, what I wanted to know was how did you—

A. I understand, sir.

Q. (Continuing.) —convince Mr. Wallin.

A. Yes; I remember. Well, he thought, he broached this point, of whether or not this had anything to do with a desire to do away with responsibilities—in his case the equipment had been there for some time and perhaps our maintenance costs on it might be going up—whether we were trying to get out from under such responsibilities, and I pointed out to him that as far as I knew Ransburg would be happy to leave that equipment in there for the

next fifty years and maintain it and live up to all of their responsibilities and that I had nothing to do with it.

And, for some reason or other, I convinced him that that was the case and that we weren't trying to beat out Webcor from anything, that he could continue on the basis that he was on and that there would be no pressure of any kind brought to bear to change that basis.

That was what he apparently suspected, that this thing was leading to an attempt on the part of my company to get him to put in his own equipment so we would
178 no longer have to maintain the equipment as we had agreed to do.

Q. But, in any event, you made it plain to him that even if he had the equipment for fifty years he'd still have to pay the monthly fee or the royalties?

A. Well, I don't think I specifically pointed that out, sir, because he knows that, I mean, that is in the agreement.

Q. It goes on indefinitely?

A. Yes, sir.

Q. There is no time limit?

A. Yes, sir, that's right.

* * * * *

184 Q. Did you ever have any discussions with any of the other sales representatives of the company relative to these form letters that were sent out in May and June of 1953?

A. No, sir.

Q. Do you know of your own knowledge whether they had the same experience you had?

A. Of my own knowledge, I don't know, no, sir.

Q. You never compared notes with them?

A. No. I see them so seldom.

Q. But the sending out of those letters did make a lot of extra work for you, didn't it?

A. Well, you use the word "lot" which is a matter of degree, of course. I don't know what a "lot" is. It made a lot of extra work for me, of course, because
185 I had people to talk to at a time when normally I wouldn't perhaps have had to talk to them.

Q. In substance, you had to explain away those letters?

A. That's correct.

• • • • •

192 Q. Well, for illustration, in the case of this Exhibit JJJ-2 the customer, under the example given there, would have had to have paid a minimum fee of $4,000, isn't that right, if he didn't take the equipment?

A. Yes, sir, that is correct.

193 Q. And for only $6,000 more he would get the whole caboodle?

A. Yes, that's right.

Q. Including service, installation, parts, et cetera?

A. Yes, sir.

Q. Would you say it would be an accurate statement to say that the alternative plan, that without equipment, wasn't sufficiently attractive for you to be able to sell it?

A. Well, I couldn't say that because I never had an occasion to try to sell it.

Q. The fact remains—

A. Nobody asked me to sell it.

Q. (Continuing) —that you did tell customers about it though?

A. That it was available?

Q. Yes.

A. Yes, sir.

Q. And you were never able to sell it?

A. I never had a buyer. I never had anybody that wanted to do that.

Q. Well, if you told the customers about it and none

of them bought it, the fact would be that you were never able to sell it, isn't that right?

A. Well, I don't know how to answer that, Mr.
194 Meroni. I will say this, that as a salesman I don't think I ever really tried to sell it. I mean, I don't see why I should try to sell equipment for someone else when I am working for Ransburg.

I mean, I never, to the best of my knowledge, ever tried to put on a real good, strong sales pitch to anyone of my customers along the line that he ought to go out and buy somebody else's equipment. In fact, I couldn't, because the natural thing for that man to do, for any man to do, had I so done, would be to say to me, "Where do I go?" and then I would be in a position where I had to say, "I don't know."

That puts me a horribly stupid-looking position, which I try not to get into. I get into enough of them anyway, but I try not to whenever possible, try not to get into any such predicament.

So that I have never really tried to sell anyone on taking the license without equipment, but I always told them it was available that way.

Q. Does management know that?

A. That I never tried to sell them?

Q. Yes.

A. I don't know, sir.

Q. Well, you didn't keep it a secret, did you?

195 A. Oh, no, no. But, I don't remember that I ever wrote them a letter stating that this is what I am doing.

Q. Well, you made it plain to them that you were doing everything you could to sell their equipment?

A. Surely.

Q. And regardless of the reason, whether it be for

economic reasons or otherwise, the fact still remains that no customer, as far as you know, bought this alternative plan or agreement without equipment?

A. That is right.

• • • • •

197 ELMER HOULBERG, called as a witness in behalf of the plaintiff herein, having been first duly sworn, was examined and testified as follows:

Direct Examination by Mr. Krause.

Q. Would you state your name, please?

A. Elmer Houlberg.

198 Q. Where do you live, Mr. Houlberg?

A. I live in Dundee, or just west of Dundee. It's Sleepy Hollow Manor.

Q. Is that the post office address?

A. The post office address is Dundee, Illinois.

Q. What is your age, sir?

A. My age is forty-two.

Q. By whom are you employed presently?

A. Chicago Rawhide Manufacturing Company.

Q. What is your position with that company?

A. Assistant general manager.

Q. Can you give us a brief outline of the scope of your duties and responsibilities in your present position?

A. Well, the responsibilities with the company generally have to do with the controlling of production and purchasing within the Elgin plant. This is the Elgin Division in Elgin, Illinois.

Q. How long have you been employed by Chicago Rawhide Company?

A. Twenty-two years.

• • • • •

203 Q. Did Mr. Pleva give you any general idea as to the manner in which Ransburg equipment is handled?

204 A. He outlined generally, as I recall, that their equipment was available on a rental basis. There was a basic minimum charge per month for their equipment and in addition to that the product was classified and the rental was based on a savings in material through volume use.

In other words, you had a basic minimum rental per month, but that could vary depending on the volume of material which was used in connection with their equipment.

• • • • • •

206 Q. I notice that there is a document entitled Ransburg Electro-Spray Agreement attached to this letter. Was that attached at the time you received the letter?

A. Yes, it was.

By Mr. Meroni: Can we have an understanding that the form of agreement that was submitted is your agreement D-35, so that we don't have to burden the record with another copy?

By Mr. Hume: Certainly, if it compares. I don't know whether that is one, but I will take your word for it. We will have the understanding on the basis that this form conforms to the one you have already had and we won't have to put in the other copy. It will take the same number as the copy to which it conforms, and I assume that is D-35, if you have compared it.

How about the number in the lower right-hand corner?

By Mr. Krause: The number is 438-1.

By Mr. Hume: That checks. I should have said, "In the lower left-hand corner."

By Mr. Krause: I am going to ask the court re-
207 porter to mark this letter of Dr. Miller's, consisting of three pages, addressed to Mr. Elmer Houlberg, dated July 26, 1955, as Binks Deposition Exhibit OOO.

I am going to have this letter photostated here so that you can take the original back with you, Mr. Houlberg.

A. Please.

(Exhibit so marked.)

Q. Will you continue with your description of what happened at Indianapolis then, sir, after the demonstration had occurred and after you had discussed this matter with the people at Indianapolis.

A. Well, generally I have outlined already what occurred down there. After seeing the application of our material and getting the information that was just outlined, we were through down there and went back to Elgin.

Q. What happened next in your business relations with Ransburg?

A. Well, I wrote to John E. Maxwell on November 3, 1955, and attached with my letter our formal purchase order 100410-134 to cover the installation of one unit electro-coating equipment per Ransburg's drawing No. 231349.

That was for electrostatically coating metal seals in accordance with Ransburg's electro-spray agreement serial No. 5940.

Q. Was that agreement—well, excuse me.

A. We also attached with the letter and the order which was mailed four signed copies of this agreement No. 5940 and we asked that two of the copies be signed by themselves and returned to us for our files.

And I might point out this order confirmed our wire of October 20th to Mr. D. Howarth and also confirmed the installation cost of $7,300, the material being installed on a rental basis, with a basic minimum rental fee of $175.00 to apply.

Q. Did you get a reply from Ransburg to that letter?

A. Yes, we did. Now, wait a minute now. Yes, we received a reply from Mr. Harry E. Downer on November

4th which acknowledged receipt of the signed copies of the agreement.

He pointed out that Mr. Harold P. Ransburg had signed this agreement on behalf of the Ransburg Company and he returned with that letter these two signed copies. And he went on to note, or made reference to, our purchase order No. 100410-134 dated November 1 of '55 and said it contains provisions which might be considered an addition to the provisions of their agreement No. 5940, and he
209 further stated that this agreement sets forth the entire contract between their company and ours and that he asumed that we had isued such order merely to facilitate our own record-keeping and not in anywise to modify their agreement, which was basically true.

The purchase order was issued for our records in connection with the installation of this equipment.

Q. May I see that letter from Mr. Downer, please?

A. Yes.

Q. May I see the letter that preceded this?

A. Pardon?

Q. Your letter to them that preceded this.

A. Yes.

Q. Do you have the purchase order available?

A. Yes.

Q. Do you have that Ransburg drawing No. 231349?

A. Yes, sir.

Q. May I see it, please?

A. Yes, sir.

By Mr. Meroni: Mr. Hume, do you have Ransburg's copy of that order 100410, so that we could have it marked?

By Mr. Hume: Right here (indicating).

By Mr. Krause: I am asking the reporter to mark
210 this as an exhibit.

By Mr. Hume: You had better compare it first.

By Mr. Meroni: Yes. It's all right.

By Mr. Krause: I am asking the reporter to mark this Chicago Rawhide Manufacturing Company purchase order No. 100410 dated November 1, 1955, as Binks Deposition Exhibit PPP-1 for identification.

(Exhibit so marked.)

By Mr. Meroni: Do you also have a copy of Mr. Downer's letter that we could mark so that we don't have to have this copied? Then we will have copies made.

By Mr. Hume: Why don't you mark the original? It's got the signature on it.

By Mr. Meroni: All right. We will have to make copies of it then.

By Mr. Krause: We will have Mr. Downer's letter to Chicago Rawhide Manufacturing Company dated November 4, 1955, marked as Binks Deposition Exhibit PPP-2 for identification.

(Exhibit so marked.)

By Mr. Meroni: Do you have an extra copy of the drawing we could mark?

211 By Mr. Hume: Yes.

By Mr. Ice: We don't have an extra one, no.

(Discussion off the record.)

By Mr. Krause: I shall ask the reporter to mark this Ransburg drawing No. 231349 dated August 2, 1955, as Binks Deposition Exhibit PPP-3 for identification.

(Exhibit so marked.)

Q. Mr. Houlberg, I am handing you this letter from Mr. Downer dated November 4, 1955, identified as Exhibit PPP-2, and I ask you whether you are familiar with the discrepancy which Mr. Downer was calling to your attention in this letter and, if so, to state your understanding of it.

A. The only discrepancy is that I understood that the agreement in itself was not spelled out in our purchase order to him, and he was referring to that.

Q. I now hand you a copy of your purchase order which has been identified as Binks Exhibit PPR-1 for identification, and ask you if there is any reference in this purchase order to a license agreement.

A. There is no reference in our purchase order to the license agreement.

Q. You mentioned awhile ago, Mr. Houlberg, that
212 you were interested in getting the equipment. Did you have any interest beyond the securing of the equipment?

A. Did we have an interest beyond securing the equipment?

Q. Well, what was your main objective in going to Ransburg?

A. Well, our main objective in going to Ransburg at the time was to investigate the equipment that they had available and which we had inquired about to be used in applying this coating to our seals, the same as we had done, as I mentioned before, with, I believe, three or four sources for spray equipment.

Q. Did you ever request a patent license from Ransburg as part of your negotiations?

A. No, we did not.

Q. Has the Chicago Rawhide Company entered into other agreements besides the one you have testified about with Ransburg?

A. With Ransburg? No. The same agreement is still in effect, to my knowledge.

Q. Can you give us an idea of what your monthly payments have been under that agreement?

A. $175.00 a month.

213 Q. In every month?

A. In each month.

Q. Have you ever exceed the minimum charge?

A. No.

Q. In your contacts with Ransburg representatives such as you have testified about, those with Mr. Pleva, Mr. Maxwell, and Mr. Miller, did any of them ever suggest to you that you could procure an agreement from Ransburg in which Ransburg would not supply the equipment?

A. I am not aware of it, no.

Q. Were you the man in charge as far as Chicago Rawhide was concerned with regard to this negotiation?

A. Yes, sir.

* * * * * *

234 PAUL ROTHE, called as a witness in behalf of the plaintiff herein, having been first duly sworn, was examined and testified as follows:

Direct Examination by Mr. Krause.

Q. Would you state your name, please?

A. Paul Rothe.

Q. Where do you live, Mr. Rothe?

A. Lombard.

235 Q. Illinois?

A. Lombard, Illinois.

Q. What is your age, sir?

A. Forty.

Q. What is your educational background, Mr. Rothe?

A. I have a year of college.

Q. In what field?

A. Engineering.

Q. Are you appearing here under a subpoena?

A. Yes.

Q. By whom are you employed presently, Mr. Rothe?

A. National Cylinder Gas Company.

Q. How long have you been employed by that company?

A. Twenty-one years.

Q. Where is the National Cylinder Gas Company located?

A. 840 North Michigan.

Q. Is that in Chicago?

A. Chicago, Illinois.

Q. What is your present position with that company, sir?

A. Engineering.

Q. Can you give us an outline of the scope of your duties at the present time?

A. Design engineer in designing new plants, plant equipment.

236 Q. What is the business of the National Cylinder Gas Company?

A. Industrial gas. That is, they manufacture oxy-acetylene-hydrogen welding and cutting equipment.

Q. Have you ever had any business dealings with the Ransburg Electro-Coating Corporation of Indianapolis, Indiana?

A. Yes, I have.

Q. Can you tell us how that first came about?

A. Well, I saw an ad in one of the industrial magazines where I noticed this electrostatic painting and recommended it to my superior and he asked me to look into it, which I did.

Q. When was that, sir?

A. I'd have to look at my file, to tell you the truth. It's a few years ago and I can't recall the date.

Q. Will you look in your file and see if you can fix that date for us?

A. Yes.

By Mr. Krause: Let the record show the witness is examining his file.

A. It was January 19, 1955.

247 Q. Mr. Rothe, I call attention to that letter of May 6, 1955, which we have had identified as Binks Deposition Exhibit BB-4 and I call your attention specifically to the second paragraph, which reads as follows:

"The enclosed agreement provides a license to use our No. 2 electro-spray process and for our furnishing certain additional items, including special equipment, supervision of its installation, and replacement parts for such equipment that becomes defective as the result of normal usage. We understand that you wish this type of agreement rather than one under which we do not furnish these addi-
248 tional items."

Now, Mr. Rothe, did you ever ask for an agreement from the Ransburg Company?

A. We were interested in a proposal on their equipment.

Q. Did you ever ask for a license under any Ransburg patents?

A. No.

Q. Did anyone in the Ransburg organization that you talked to suggest that you might be licensed under some alternative arrangement wherein Ransburg would not supply the equipment?

A. I couldn't recall that.

• • • • •

262 CLARENCE E. WALLIN, called as a witness in behalf of the plaintiff herein, having been first duly sworn, was examined and testified as follows:

Direct Examination by Mr. Meroni.

Q. For the purpose of the record, would you please state your name?

A. Clarence E. Wallin.

Q. Where do you reside, Mr. Wallin?

A. 3807 North Spaulding, Chicago.

Q. How old are you, sir?

A. Forty-seven.

Q. By whom are you presently employed?

A. Webcor, Incorporated.

Q. In what capacity?

A. Manufacturing engineer.

Q. Where is that company located?

A. We have four plants in Chicago and the main office is at 5610 West Bloomingdale.

Q. Is that where you are located?

A. No. I am at 3912 West McLean.

Q. What is the general nature of the products of that company?

A. Record changers, tape recorders, phonographs, 263 high fidelity equipment, laminations.

Q. Was that company formerly known as Webster-Chicago Corporation?

A. Yes.

Q. It's now called Webcor?

A. Webcor, Incorporated.

Q. How long have you been associated with that company?

A. Since July of 1950.

Q. How long have you been associated with it in the same capacity as now?

A. Oh, since, I'd say, the spring of 1951. It was about six months after I came.

Q. Are you a graduate engineer or have you acquired your engineering training by your experience?

A. No, I have no degree.

Q. You have acquired it through experience?

A. And some night study.

Q. Are you acquainted with any of the personnel of the

Ransburg Electro-Coating Corporation in Indianapolis, Indiana?

A. Yes; I have met several of them at various times.

Q. You understand that this is a suit between the Binks Company and the Ransburg Company?

A. Yes.

264 Q. And you are here pursuant to a subpoena?

A. That's correct.

Q. Did I understand you to say that you had some dealings with the Ransburg people?

A. Yes. Except for in early 1950, most of the transactions with Ransburg had gone through me.

• • • • •

266 Q. In order to assist you in your recollection of the matter, I also call your attention to a photostatic copy of another letter, allegedly written by yourself, dated June 3, 1953, which has been identified as Binks Exhibit LLL-3.

A. Yes, that's right. I don't have these in my mind; they must have been turned over to somebody else.

Q. But did you write that letter?

A. Yes.

Q. That is dated June 3rd? Or, what is the date of it?

A. June 3rd. And we did receive the one of the 27th, the one of May 27th, also.

Q. Your letter of June 3rd was in response to the one of—

A. Yes.

Q. (Continuing.) —May 27th?

A. Yes.

Q. As a result of the writing of your letter of June 3rd did the Ransburg people further contact you?

A. Well, I don't recall whether they contacted us or not.

Q. I hand you what purports to be a letter written
267 by Mr. Pleva dated June 26, 1953, identified herein as Binks Exhibit LLL-4, and ask you if that refreshes your recollection in any regard as to whether anybody from Ransburg contacted you following your letter of June 3rd.

A. Yes, that's correct. He did come in and we did discuss that, yes.

Q. You mean Mr. Pleva did come in to see you?

A. Yes.

Q. You understood he was the Chicago area representative of Ransburg?

A. Except for a few early instances, he's usually the one that I contacted in dealings with Ransburg—locally, that is.

Q. Now, he quotes you as having said, "In fact, he wanted to know why we had even bothered to write them concerning such a 'ridiculous' proposition."

Why did you characterize it as a ridiculous proposition?

A. Well, for the economics of the offer, because we would have to go in and spend a certain amount of money to replace their equipment and for doing that the returns that we would have gotten wouldn't have paid for our expenditures.

So, there wasn't even any point of even consider-
268 ing it.

I have an inter-office memo here that I sent to my boss at the time, and our savings only would have amounted to $20.00 per month. We would still have to pay them royalties at the rate of $80.00 per month, plus ten per cent of the cost of the paint and reducers, so to save that at $20.00 * * * well, there wasn't any point in talking about it any farther.

Q. You mean over and above that you would still have had to buy your equipment if you had accepted the offer?

A. Oh, sure, sure. That was the basis of it. We were to return their equipment and furnish our own equipment—following their method of applying paint with the No. 1 system, that is.

Q. Well, had your company made an initial fee payment to get that equipment? Had your company paid an initial fee in order to get that equipment?

A. Yes.

Q. Was that a substantial amount of money? Do you recall the amount?

A. I don't know. I may have it here.

Well, according to information which I got from the records back in 1953, we paid Ransburg $3,018.62 for the No. 1 equipment. That was their installation and 269 engineering charges which they normally made on that type of a contract, and that would have been forfeited, we would have gotten no return out of that.

Q. If you had accepted this proposal of the letter of May 27, 1953?

A. Yes.

Q. Is that the letter you are referring to?

A. Yes.

Q. Is that the proposal you are referring to?

A. Yes, that's right.

Q. Have you ever seen this letter of Mr. Pleva's before today?

A. No, I don't believe I ever saw this.

Q. I now hand you what purports to be a copy of another letter written to your company, this being a photostat of the copy from the files of Ransburg, dated March 23, 1954, identified herein as Binks Exhibit LLL-1, and ask you if you recall receiving the original of that letter.

A. Yes, I received the original.

Q. To what type of system did that pertain?

A. The No. 2 disc.

Q. What was your understanding in your dealings with Ransburg as to whether any of the Ransburg systems could be purchased outright?

270 A. Well, as I recall my understanding, the most normal way for them to handle leasing of their equipment—that is, the common way—was on a rental basis, with the royalties based on the amount of paint and a certain rental every month.

We had had a conversation on the possibility of buying the No. 1 system, and when we went to the No. 2 we also asked them about the possibility of buying it rather than leasing it.

Well, as I recall, they wouldn't sell the equipment from their own stock but they would furnish the engineering information—and on a contract basis, of course—where we would pay royalties.

They would furnish the engineering background to install the system of that type, but it would be up to us to go out and procure the equipment on our own from whichever sources we could determine could supply it and, of course, we would have to maintain the equipment ourselves.

Q. Go ahead, sir.

A. And, as I recall it, we made this change just before our busy season; in fact, we were into our busy season already. We felt it was a big enough step to make the step from the No. 1 to the No. 2 without getting involved in a lot of additional engineering, so we didn't bother

271 any more about that part of it.

Q. Did you procure from anyone, either from Ransburg or elsewhere, any estimates as to what it might cost to buy equipment for the No. 2 system from someone else?

A. Not a No. 2, no.

Q. Did you on the No. 1?

A. Well, that was not at that time. Oh, about a year

and a half before that I had checked other No. 1 systems, but we decided not to go to that because the No. 1 had certain limitations that wouldn't work on some of our parts.

Q. Did anyone from Ransburg ever give you an estimate as to what electrostatic spray coating equipment would cost if you bought it from an outside source?

A. Well, not in correspondence, no.

Q. Did they do it orally?

A. Well, it was more or less given us and we understood from conversations that the cost of the equipment that we were getting on this contract was more than what we were paying on our initial installation.

Q. Well, on the No. 2 system as set forth in this letter of March 23rd, the recommended system there entailed an initial fee of around $8,400.

A. Yes.

272 Q. Is that the one you took?

A. That is the one we took.

Q. Did you understand that if you went on the outside and tried to buy that equipment it would cost you more than $8,400?

A. That was our understanding, yes.

Q. From the Ransburg people?

A. Yes. And it was also stated that the equipment costs were prorated over that fee and the royalties that we would be paying.

Q. By that do you mean that part of the Ransburg cost was obtained from the initial fee and part from the royalties?

A. Yes.

Q. Is that what you mean?

A. Yes.

Q. Was anything ever said to you by Ransburg's representatives about the patent license?

A. No, not that I recall.

Q. Was anything ever said to you by Ransburg as to whether you could acquire the equipment for the No. 2 system without taking the license?

A. No.

Q. Well, did you have any understanding at all as to the patent situation?

273 A. Nothing that I can recall, no.

Q. Well, in your discussions with Mr. Pleva and other representatives of Ransburg did anything come up about the matter of your having to take a license in order to get this equipment?

A. No, I don't recall anything about that.

Q. You do recall that the discussion centered around leasing the equipment?

A. Well, that is what our contract is set up on, isn't it? Isn't it a leased equipment basis?

Q. Did you have any discussions of any other basis, other than a lease basis, with representatives of Ransburg?

A. Well, we went over there. We discussed buying it. It's in that letter.

Q. Which letter are you referring to, sir?

A. The one dated March 28, 1954, at the top of the second page.

Q. Well, the second paragraph there, in referring to equipment, in stating it would cost thousands of dollars to manufacture, refers to the No. 2 system, I take it.

A. That is what this letter is about, yes.

Q. Now, in the first sentence of the letter, the first sentence of the letter on the second page, appears this

274 statement:

"If a customer desires a license without our equipment, installation supervision, and replacement parts or

service, the initial fee would be forty per cent of the standard initial fees quoted above."

Did you understand by that that if you took the deal tendered by Ransburg without equipment you would still have to pay forty per cent of the $8,400?

A. That is the way it reads, yes.

Q. And you would not get any installation supervision or any replacement parts or any service?

A. That's right.

Q. Did you take the No. 2 system?

A. Yes.

Q. You entered into a contract with Ransburg?

A. Yes, we did.

Q. And Ransburg installed the system?

A. Yes.

Q. What if any services did Ransburg render in connection with that system?

A. Every time we have a service problem they are called, and they get a man there practically the following day.

Q. Have they made any additional charges for that 275 service, do you know?

A. No.

Q. That is embraced in your—

A. Yes.

Q. (Continuing.) —charges?

A. Yes. That is covered by the fee that we pay.

Q. Have they also rendered technical assistance?

A. Yes.

Q. When has that been?

A. From time to time we have sent parts, special parts where we have finishing problems which we felt we needed a little additional help on, to them and they have run additional tests in their lab and have given us the answers.

Q. Have they made any charge for that, to your knowledge?

A. No.

Q. That has been included in the charges—

A. Yes.

Q. (Continuing.) —under the contract?

A. That's right.

Q. Have you ever had to acquire any replacement parts?

A. No. All the parts in the equipment are covered by our charge.

276 Q. Well, I mean, has Ransburg from time to time furnished additional parts?

A. Oh, yes.

Q. You haven't gone out on the outside and bought any parts?

A. No, no.

Q. You considered that was all included in the contract?

A. That's right. We even get hoses, connecting wires. The lead-in cable will break down, and that is furnished.

Q. Well, you could buy that on the outside, if you wanted it?

A. We could, but why should we when we are paying for it.

Q. So to that extent it has cut down the amount of business you have had to transact with outsiders as far as these parts are concerned, is that right? I mean third parties, people besides yourself and Ransburg. You haven't had to go out and buy anything from other people?

A. For this particular equipment, you mean?

Q. Yes, yes.

A. The No. 2 equipment?

Q. Yes.

277 A. No, we don't buy anything for the No. 2 for their part of the equipment. There are other parts, the paint supply and stuff, which we still buy outside.

Q. But nothing for the equipment that they furnished?

A. No, we don't buy anything.

• • • • •

280 ANDREW G. HUBBARD, called as a witness in behalf of the plaintiff herein, having been first duly sworn, was examined and testified as follows:

Direct Examination by Mr. Meroni.

Q. Please state your name.

A. Andrew G. Hubbard, H-u-b-b-a-r-d.

Q. Where do you reside, Mr. Hubbard?

A. Naperville, Illinois.

281 Q. How old are you, sir?

A. Fifty-three.

Q. Are you here pursuant to a subpoena?

A. I am.

Q. With whom are you presently associated?

A. With the Hotpoint Company, Division of the General Electric Company.

Q. In what capacity?

A. Patent counsel.

Q. How long have you been employed in that capacity by that company?

A. Since June of 1950.

Q. Just for the purpose of the record, state generally the nature of the products of the Hotpoint Company.

A. The Hotpoint manufactures what we call major appliances: water heaters, dishwashers, clothes washing machines, refrigerators, ranges, food waste disposers.

Q. They make the so-called white line?

A. Yes.

Q. Have you had any dealings with the Ransburg Electro-Coating Corporation, the defendant in this case?

A. Yes.

282 Q. In what connection?

A. I had direct dealings with them in connection with an agreement which I was called upon to review. I recall that was in 1952. And, generally speaking, an agreement comes to me for review as to its patent provisions, for me to see whether or not the agreement provisions are acceptable to the company generally.

In an organization such as the General Electric Company more than one operating division might be concerned when an operating division takes an agreement because the agreements are generally with the General Electric Company.

In the present instance I recall that I objected to a patent provision which, as I recall, required the Hotpoint Co. to disclose to Ransburg and to give to Ransburg rather complete rights under any inventions which we might make in connection with the paint spray equipment. My objection to that was that it was basically unsound, and we did negotiate a revision of that paragraph.

Q. Ransburg supplies several types of systems. Do you perchance know what type of system it was or what the identity of the system was that you had your dealings on?

283 A. I suspect it was the No. 2 so-called system, the airless spraying system. I am not sure whether the Hotpoint Company has any of the old gun type systems. I think they did not have after my association with Hotpoint.

Q. Do you know whether you ultimately consummated an agreement with Ransburg for the No. 2 system?

A. Yes.

Q. You did consummate it?

A. Yes.

Q. Do you know whether any revision was made in the paragraph having to do with inventions that you mentioned?

A. Yes. In that particular case we revised the paragraph along lines that I considered satisfactory for the General Electric Company.

Q. Do you perchance have a copy of the agreement with you?

A. Yes, I have.

Q. Can you produce it?

A. This agreement, which is identified as Serial No. 4340, is the agreement I spoke of (indicating).

Q. I notice that in this agreement the paragraph entitled "11. Future Inventions" is crossed out.

A. That's correct.

284 Q. Is that the paragraph with the thing that you were talking about before?

A. It is.

Q. And embraced by this agreement is an amendment on a single typed page. Is that the amendment you negotiated?

A. That is.

Q. And that is entitled "11. Future Inventions"?

A. That's correct.

Q. That paragraph was substituted for the one that appears in the printed form?

A. Yes.

Q. For that in the printed agreement?

A. Yes.

Q. Who did you contact in the Ransburg Company in the negotiations for this change?

A. We met in Indianapolis with Mr. Downer, I believe, who is their resident counsel.

Q. Downer?

A. Downer. And with Mr. Harold Ransburg and others. As I recall, Mr. Harold Ransburg was the one in the Ransburg organization who seemed primarily concerned with this agreement.

Q. Did you endeavor to obtain an agreement without any such provision as to future inventions?

285 A. Yes, we did.

Q. With what results?

A. Negative results. Now, I might say that such negotiation was carried on orally at this meeting in Indianapolis that I spoke of.

Q. With Mr. Harold Ransburg?

A. And Mr. Downer.

Q. And Mr. Downer?

A. It was a general discussion directed towards what I thought was the inequity of this paragraph 11.

Q. Well, can you tell us what transpired in that discussion—that is, what you said and what Mr. Ransburg said? That is, as you recall it.

A. I suspect I tried to preach to them a little bit about what I considered a rather killing-the-goose-that-laid-the-golden-egg kind of a provision.

Generally speaking, the General Electric Company has a rather liberal licensing policy. We do not require and, as a matter of fact, we steer away from, the so-called grant back provisions and I have probably been indoctrinated in that philosophy. So our discussion was a very friendly one and a rather long one.

Mr. Downer, as I recall, talked about the Trans-Wrap situation as being one which justified
286 their position and we had considerable argument about that. The net result was, however, that I did not per-

suade them to eliminate this patent provision and we did negotiate that one which I thought was a satisfactory substitute for theirs.

• • • • •

287 Q. Now, I notice that this agreement, which I understand was executed by your company—

A. Yes.

Q. (Continuing)—and is still in force and effect—

A. Yes.

Q. (Continuing)—does not identify specifically any patent.

Did you get any supplemental rider, or anything that identified any patent of Ransburg?

A. No.

Q. Were you in any way advised as to what patents of Ransburg were applicable?

A. No.

• • • • •

296 CLARENCE GOLTERMANN, called as a witness in behalf of the plaintiff herein, having been first duly sworn, was examined and testified as follows:

Direct Examination by Mr. Krause.

Q. Would you state your name, please?

A. Clarence Goltermann, G-o-l-t-e-r-m-a-n-n.

Q. And your address, sir?

A. Home or factory?

Q. Your home address.

A. 633 Main Street, Glen Ellyn, Illinois.

Q. And your age?

A. Forty-two.

Q. Are you here pursuant to a subpoena?

A. Yes.

Q. By whom are you employed, Mr. Goltermann?

A. Poray, Incorporated.

Q. Where are they located?

A. 3369 West Grand Avenue, Chicago 51, Illinois.

Q. How do you spell that name Poray?

A. P as in Peter, o-r-a-y.

Q. How long have you been employed by that company?

A. Twelve years.

Q. What is your present position with that company?

297 A. Vice-president.

Q. What is the business of the Poray Company?

A. They are contract manufacturers and finishers.

Q. What type of products do you manufacture and finish?

A. We have no product of our own; we manufacture just about everything. Basically we are in the radio and TV industry.

Q. Have you ever had any business dealings with the Ransburg Electro-Coating Corporation of Indianapolis, Indiana?

A. Yes.

• • • • •

304 Q. In all of your contacts with the Ransburg organization leading up to these contracts, did anyone in the Ransburg organization suggest to you that you could get the equipment without a patent license?

A. Purchase it outright?

Q. No; without a license to use the Ransburg patents, whatever they were.

A. No, no.

Q. Did anybody ever suggest to you that you could get a license under the Ransburg patents without taking the equipment?

A. No.

• • • • •

2 PLAINTIFF'S EXHIBIT OOOO.

WILLIAM A. DARRAH, called as a witness in behalf of the plaintiff herein, having been first duly sworn, was examined and testified as follows:

Direct Examination by Mr. Meroni.

Q. Please state your name, Mr. Darrah.

A. William Austin Darrah.

Q. And where do you reside, sir?

A. 901 North Oak Park Avenue, Oak Park, Illinois.

3 Q. And that is a suburb of Chicago?

A. It's a suburb of Chicago.

Q. How old are you, sir?

A. Seventy-one, I think.

Q. By whom are you employed at the present time?

A. Lindberg Engineering Company.

Q. Does that company have an office in Chicago?

A. Yes, they do.

Q. What is the address of that company?

A. 2321 West Hubbard Street.

Q. Are you here today pursuant to a subpoena that was served on you?

A. I am.

Q. In what capacity are you associated with the Lindberg company? How do you spell that?

A. L-i-n-d-b-e-r-g. I am vice-president.

Q. Are you in charge of any particular phase of the business?

A. Not particularly. It covers quite a phase.

Q. In general what are your duties?

A. Well, you might class them as executive.

Q. How long have you been associated with that company?

A. Two and a half months.

Q. And prior to that with whom were you associated?

A. Continental Industrial Engineers, Incorporated.

Q. And in what capacity were you associated with that company?

A. President.

Q. Is that company still in existence or has it merged with some other company?

A. It has merged, substantially merged, with Lindberg.

Q. How long were you associated with the Continental company?

A. Over thirty years.

Q. What is the general nature of the products of the Lindberg company?

A. Industrial furnaces, principally.

Q. Is that company a substantial concern? By that I mean does it have numerous offices and places of business?

A. Yes, they have numerous offices.

Q. Can you state some of the other offices of that company offhand?

A. They have a New York office, a Pittsburgh office, a Massachusetts office, a Los Angeles office, to name a few of them.

Q. In general what position does it have in the furnace field? Is it one of the leading manufacturers or one of the minor manufacturers?

A. Well, I think you can say it's one of the leaders.

Q. What was the nature of the products of the Continental company that you had been previously president of?

A. Industrial furnaces, principally.

Q. Now, I believe you said you were associated with the Continental company for something like thirty years.

A. Yes.

Q. Can you tell us briefly the different positions that

you had with that company during that period of time leading up to your becoming president?

A. I was president practically from the start.

Q. You were?

A. Yes.

Q. Did you have anything to do with the forming of that company?

A. Yes. I organized it.

Q. Do the products of that company and Lindberg in any way relate to electrical devices?

A. Yes. We build electrical furnaces.

Q. You build electrical controls for electrical furnaces?

A. Well, we buy those usually.

Q. But you do sell them with the furnaces?

6 A. Yes.

Q. Are they made pursuant to your specifications?

A. Well, we try to use standard controls.

Q. Prior to your organizing or going with the Continental company what did you do?

A. I was superintendent of the Noble Electric Steel Company.

Q. And how long were you with that company?

A. Oh, I should say roughly two years.

Q. And prior to that what did you do?

A. I was manager of engineering of the Ohio Brass Company.

Q. And for approximately how long?

A. Two to three years. I can't recall it exactly.

Q. And do you recall what you did prior to that?

A. I was with the Westinghouse Company.

Q. In what capacity?

A. As an engineer.

Q. An electrical engineer?

A. Well, we dealt with general engineering.

Q. And prior to going with Westinghouse what did you do?

A. I was with the Development Division of the Western Electric Company.

Q. At what plant?

7 A. On Bank Street in New York City.

Q. And how long were you with the Western Electric Company?

A. Two to three years. I can't give you the exact date.

Q. And previous to that what did you do?

A. I went to college.

Q. Where did you go to college, sir?

A. Worcester Polytechnic Institute.

Q. Did you receive your degree there?

A. Yes. I received two degrees.

Q. What were they, sir?

A. Bachelor of Science in Electrical Engineering and Electrical Engineer, which coincides with a Master's degree.

Q. Do you recall my calling you up recently and asking you if you were the inventor of a certain patent?

A. Yes.

Q. And what was your answer?

A. "Yes."

Q. And following that I had a conference with you. Do you recall that?

A. Yes.

Q. And that was at the Lindberg company?

A. Yes.

8 Q. Do you recall my asking you if you would testify in this cause as a witness?

A. Yes. I understood this was to be fact testimony and not as an expert.

Q. Are you a registered patent agent in the Patent Office?

A. Yes, I am.

Q. I hand you what purports to be a soft copy of United States Patent No. 1,958,406, issued May 15, 1934, and ask you if you can identify that patent.

A. Well, that appears to be a patent issued to me May 15, 1934.

Q. Did you prepare and prosecute the application from which that patent issued?

A. I did.

Q. This patent bears a filing date of December 27, 1926. I believe you have a copy of it before you. Can you state where you were located at that time?

A. Yes. At 901 North Oak Park Avenue in Oak Park.

Q. Were you associated with any company at that time?

A. With Continental Industrial Engineers.

Q. Please state briefly what if anything led up to your filing of this application from the standpoint of what you did before you filed it in connection with the device.

9 A. Well, I made some what you might call models of small operating devices, similar to those shown on the drawing in this patent.

Q. Where did you make those?

A. In my basement laboratory at 901 North Oak Park Avenue.

Q. Now, after you made these devices what if anything did you do with them?

A. Well, I operated them, using water and some other liquids, including oils.

Q. With what result?

A. I was able to produce very finely divided sprays of charged particles.

Q. Can you elaborate on what you mean by "charged particles"?

A. I can't tell you the diameter of the particles. They were just very fine particles. You could only see them by

directing a beam of light through them, through the space they occupied.

Q. Was the charging of any significance?

A. Well, the charging gave interesting results. You could deflect the particles by the electrical charge, deflect the path of the particles.

Q. Do you recall what voltages you used in so charging the particles?

10 A. I used various voltages ranging from, I would say, perhaps a minimum of ten thousand up to fifty thousand.

Q. Was that A C or D C voltage?

A. Principally A C. I used some D C.

How does the drawing in this patent of yours compare with the structure that you say you built and operated?

A. It illustrates it.

Q. Now, referring to page 3 of the patent specification and more particularly to lines 8 to 17, you talk about suspended particles being allowed to adhere to walls or other desired positions, "where it may be readily removed."

What if anything did you do in that regard in your work leading up to the filing of this patent?

A. Well, I was interested in finding the pattern of the spray and on accasion I added some coloring matter to the liquid and directed the charged particles to a sheet of paper in order to determine the pattern of the spray.

Q. Please state whether or not the charged particles adhered to the paper that was sprayed.

A. In part, yes.

11 Q. Now, you say you added coloring matter. What kind of pigment did you add?

A. It wasn't a pigment, it was a little red ink.

Q. Now, in the first paragraph of your specification you refer to this device as resembling an atomizer. Will you

state whereih the device does resemble or pertain to an atomizer?

A. Yes. Now, what is your question, please?

By Mr. Meroni: Read the question to the witness, please.

(Record read.)

A. I used that term because the electrical charges appeared to cause very fine drops somewhat similar to what you'd get in an atomizer.

Q. And where did that action take place in your device? That is, where were the particles broken up into fine drops?

A. The particles seemed to be formed at the points.

Q. Well, referring to your drawing, say to Figure IV for illustration, to what do you refer when you say "point"?

A. The portion marked 24.

Q. Now, in that same Figure IV what does 22 designate?

A. It appears to designate the reservoir of liquid.

12 Q. And how was that liquid in the device that you operated transferred to the point where it was broken up or atomized?

A. It passed down through the tube 23.

Q. You mean it was fed through that U-shaped tube 23 that is shown in Figure IV?

A. Yes.

Q. Now, what does the symbol "V" designate in Figure IV?

A. That indicates the source of voltage.

Q. What did you use specifically as a source of voltage in order to get this high voltage you have been talking about?

A. Most of the work was done with a small transformer.

Q. Was some work done with some other device? You say "most of the work * * *"

A. I endeavored to rectify the alternating current, but very little work was done with that.

Q. How did you endeavor to rectify it?

A. The only facilities I had available was a hot point charging to a plate.

Q. What does the term "power pack" usually signify in electrical engineering?

A. Now you are asking for an expert opinion.

13 Q. Well, I am asking you if you know what that term signifies.

A. Yes.

Q. Would you state what it signifies?

A. It signifies usually a source of direct current.

Q. Is it necessarily always direct current?

A. Not necessarily, no.

Q. What might it be?

A. Alternating current.

Q. In your career leading up to your engineering practice, when did you first have occasion to come into contact with or to know about a power pack?

A. I can't answer that. I don't know when I first came in contact with a power pack.

Q. Well, in college did you have anything to do with power packs?

A. Not as they were known as power packs, but I had to do with the equivalent.

Q. What do you mean by "the equivalent," sir?

A. Well, a source of power, alternating current.

Q. When did you first become familiar in your work either before or after you became an engineer, with the term "electrostatic"?

A. Well, that was in college, of course.

Q. In your patent you refer to an electric field.

14 What is an electric field as used here?

A. As used here it would be a conductor carrying a potential.

Q. Well, referring again to Figure IV of your drawing, where is the field located?

A. The effective field in Drawing IV is between the point 24 and the ring conductor 28.

Q. Is that field a specific type of field in electrical work?

A. I don't think there is anything unusual about it.

Q. Well, there appears to be an air gap between the two points you mentioned, namely, point 24 and the ring.

A. That's correct.

Q. How does the throw occur between those points?

A. Well, the field that was effective appeared to exist in the air space between the ring and point.

Q. In your patent, on page 2, line 31, you say, "* * * electrostatic forces cause the rapid throwing of small particles of liquid from the end of the nozzle."

Does the field have anything to do with that?

A. I had assumed that the field was the cause of that.

Q. Does voltage gradient have any significance in this regard?

A. Well, you are asking me as an expert?

Q. No, I am asking you from the standpoint of your knowledge derived from your work on this. Does voltage gradient have any importance there?

A. Possibly.

Q. Now, at the top of page 2 of the patent, Mr. Darrah, beginning in line 2, you say, "I have also found that applying potential to only one of the two terminals will permit the production of the spray outlined above, but obviously with greatly reduced volume."

Will you explain briefly what is meant by that?

A. Well, if the point were charged and the ring was not charged, I could still produce the spray, but very substantially reduced.

Q. You say you found that to be so. When did you find that to be so?

A. This work was done some thirty years ago and I can't give you any dates.

Q. Well, how did it compare with the work that you did do prior to the filing of the application?

A. Just what is your question now?

Q. Referring again to this statement, "I have also
16 found that applying potential to only one of the two terminals will permit the production of the spray outlined above * * *" my question is, how did that statement compare with what you had done before you filed your application?

A. Well, that was a statement of things I had found during the experimental work.

Q. Can you make for us a sketch of how you hooked up the apparatus in conformity with that statement?

A. Well, I think the easiest way is to refer to the drawing.

Q. All right.

A. Referring now to Figure IV again—

Q. Yes?

A. (Continuing)—we merely omit the connection to the voltage source of conductor 28.

Q. Where then were the two points or two electrodes?

A. Well, the point was charged and presumably the surrounding walls represented the other terminal.

Q. You sometimes call that a ground terminal?

A. It wasn't a regular connected-to-ground terminal, but it could be called a ground terminal.

Q. And the wall that you are referring to, is that the wall that you were spraying material on?

A. No. I used two terminals whenever I sprayed a
17 material on a sheet of paper.

Q. And where were the terminals disposed then?

A. Well, referring to Figure IV, one terminal was point 24 and the other terminal was conductor 28.

Q. And where did you dispose the paper with reference to those?

A. The point was directed horizontally—in that case perhaps more like the construction shown in Figure I—and the paper was put a few inches away from the point.

Q. Now, you referred to Figure I in your last answer because the point 24 is shown horizontally, is that right?

A. Yes, the general center line would be substantially horizontal.

Q. And you say the piece of paper was some inches away from point 24?

A. That's correct.

Q. And was it in the field?

A. Well, of course, field is a matter of indefinite extent. It could be considered to be within the field, but the field was probably very weak.

Q. And what happened when you so sprayed the paper?

A. Well, we got drops collecting on the paper.

Q. And why did you use ink?

18 A. Merely because I couldn't see where the water struck the paper.

Q. What color ink do you recall using?

A. Red ink, I think.

Q. What was the condition of the liquid with the red ink in it when it struck the paper? Was it still in liquid form, solid form, or some other form?

A. The drops were so fine you couldn't see them until they made a mark on the paper.

Q. Was it moist?

A. Yes.

Q. What if anything did you do with this device after you made these tests and observations?

A. Well, I couldn't find any or I couldn't think of any application, so I just let it rest.

Q. Well, did you try to find some application?

A. I gave it some thought.

Q. Did any application occur to you?

A. Nothing other than mentioned in the application here.

Q. Now, referring back again to Figure I, which was the device which you say you used in connection with the paper demonstration, where is the atomization point?

A. It's indicated by number 4.

Q. And is there any indication of what happened to
19 the particles after they were atomized in Figure I?

A. Well, they floated in the air for a little while and then apparently evaporated.

Q. But when you used the piece of paper what happened? Did they lodge on the paper?

A. Yes.

Q. Please state whether it would be accurate, in describing your device when you sprayed the paper, to state that the liquid particles were atomized, dispersed, and deposited on the paper.

A. That would appear to be correct.

Q. And that was the only instrumentality that was used to effect such atomization, dispersion and deposition of the liquid?

A. Well, the result was obtained, in my opinion, by the electrical field.

Q. The electrostatic field?

A. The electrostatic field.

Q. I hand you again this copy of your patent and ask you if you recall who made the drawings for the patent.

A. No, I don't know.

Q. But you do recall writing up the patent yourself?

A. Yes.

Q. I mean by that the application from which the
20 patent issued.

A. That's right.

By Mr. Meroni: I would like to have this copy of the patent marked for identification as Binks Deposition Exhibit UUU.

(Exhibit so marked.)

Let's take a five-minute recess.

By Mr. Hume: All right.

(A short recess was taken.)

By Mr. Meroni: You may cross examine.

Cross-Examination by Mr. Hume.

Q. Mr. Darrah, as I understand it, the laboratory experimentation to which you have referred in your examination this morning took place at 901 North Oak Park—

A. That's correct.

Q. (Continuing)—Avenue in Oak Park, Illinois.

A. Yes.

Q. And that is your present address, your address today, isn't it?

A. That's correct.

Q. Who actually constructed these models with which you worked?

21 A. I did.

Q. By the way, was there one model or more than one model?

A. I made various modifications, somewhat as shown in the drawing.

Q. Well, would you make one and then alter it, trying the same device in a different arrangement, or would you make a second model?

A. Well, it would probably be a second model. Well, I think it should be understood that this was over thirty years ago.

Q. We realize that, Mr. Darrah.

A. And I can't be too precise. The work was done by me personally.

Q. Did you have anyone assisting you in that?

A. No.

Q. Did anyone witness any of these experiments?

A. Yes, there were some witnesses.

Q. Do you recall who they were?

A. I have particular reason to recall that there was a Harry Kennedy, one Harry Kennedy, who visited me, an old friend from California.

Q. Do you know where he is now?

A. No, I am not sure.

Q. Do you know whether he is living or not?

22 A. I don't even know that.

Q. Is he a resident of California?

A. He was, yes.

Q. At that time?

A. At that time.

Q. Was he residing in California the last you heard of him?

A. That's right.

Q. And how long ago was that?

A. Well, that I can't answer precisely. I'd say two, three years ago.

Q. Now, do you recall whether or not you made a model which represented or was illustrative of each one of the figures shown in the drawing of the patent referred to? First we will deal with Figure I. Did you make a device of that character?

A. Something similar, yes.

Q. When you say "something similar," in what way was it similar and in what way was it different?

A. Well, what I did was to take glass tubes and draw them out to a point and then bend some tubing to a ring

and put a conductor inside of it. That was the basis of all of the work.

Now, as to exactly what was done, I can't tell you at this date.

23 Q. So that the so-called nozzle was made of glass?

A. That's right.

Q. We have referred to that nozzle as "the point" in some of your testimony here today?

A. That's right.

Q. And how big an opening did it have in the outlet end?

A. I didn't measure it, but it was very fine.

Q. Would it be in the nature of a capillary opening?

A. I'd say smaller than a capillary.

Q. Smaller than a capillary?

A. Yes.

Q. And what material did you use to insulate the electrode ring?

A. Glass tubing.

Q. Was that the ordinary glass tubing used in chemical laboratories?

A. Similar, yes.

Q. Was it just something bought on the market or something you made especially?

A. No; something I had around the laboratory.

Q. It was just the conventional tubing used in chemical laboratories?

A. Commercial glass tubing, that's right.

Q. Commercial glass tubing?

24 A. Yes.

Q. Do you recall what the size was?

A. I can't give you these things after thirty years.

Q. I realize that.

A. I'll do the best I can.

Q. Thank you, sir.

A. I'd say the outside diameter was around 3/16 to a quarter inch.

Q. And what kind of a wire did you use for the electrode?

A. Copper wire.

Q. Now, would you look at Figure I, for instance, and tell me what the disposition was of the point with respect to what we might call the plane of the loop electrode? Did it extend inwardly and beyond the plane of the electrode or did it stop?

A. Well, I tried various things. It generally was back of the plane.

Q. In other words, as you moved the outlet tip of 4 in Figure I, for instance, toward the electrode, it didn't quite get to the middle point?

A. That's correct.

Q. It stopped short of that?

A. Well, I tried it in various points.

Q. Well, was there any difference?

A. The most effective result was when it was just a little short of being on the center line.

Q. And that was being short?

A. Yes.

Q. What is the element 10 in Figure I?

A. 10 indicates a duct.

Q. Did you ever conduct an experiment employing a duct of the type shown in Figure I?

A. Approximately that, yes.

Q. Well, did you have some sort of a wall to constitute a conducting passage?

A. We had an insulating wall.

Q. What was the element 10 composed of in the experiment that you conducted?

A. You're getting quite techincal after thirty years. It was some insulating material I had on hand and I don't remember what it was.

Q. Now, did you make a model like that illustrated in Figure II?

A. Well, somewhat similar, yes.

Q. Was this the same model as the one that you have talked about with respect to Figure I or was it a different model?

A. It was a different model.

Q. And did that have a duct like the element 10 in Figure I, or not?

A. I don't believe I used the duct on that. Again, thirty years is quite a lapse of time.

Q. Yes, sir. Now, do you recall, Mr. Darrah, the disposition of the outlet openings of the respective points in the device illustrated in Figure II? Were they horizontal or was there some other disposition?

A. They were substantially horizontal, as far as I can recall.

Q. So that is it fair to say that the illustration in Figure II is substantially like Figure I except that it's a multiple arrangement instead of a single arrangement of the point?

A. And a different type of opposing conductor, number 8.

Q. The difference there being that it's more elongated?

A. That's correct.

Q. Any other difference?

A. Well, there is the obvious difference that is shown in the drawing.

Q. Now, did you make a model that conforms to the illustration in Figure III of the patent drawing?

A. We made some rought tests on that, yes.

Q. Yes.

27 A. These drawings are all smoothed and made to look nice, much better than the actual product.

Q. What caused the liquid in the mechanism shown in Figure III to feed up into the tube 13, as illustrated?

A. Well, I can only guess that it appeared to do that by capillary action when the liquid was removed from the point. That is the assumption I made.

Q. How did it get in there in the first instance?

A. I filled it and turned it over.

Q. And thereafter it seemed to feed up into the tube 13 by capillary action?

A. That is what I assumed, yes.

Q. Well, do you make any different assumptions today?

A. No. I haven't given it much thought.

Q. Have you any knowledge as to what became of these particular models that you worked with?

A. Not after thirty years.

Q. Is it by any chance possible that you still have them?

A. I doubt it very much. They are probably out in the ash can.

Q. Do you still have that laboratory that you worked in?

A. I still have the basement to the house.

28 Q. But have you made any search to see if you could find these models?

A. No. There is no point in searching. I wouldn't know where to look.

Q. Well, is it your answer to us that they are just not available any more, that they have been disposed of?

A. That's right. It wouldn't be too difficult to duplicate that.

Q. Have you any drawings, other than this patent drawing, that represents the—

A. Not today, no.

Q. (Continuing.) —models?

A. Not at this date.

Q. Have you any written descriptions of those tests?

A. Everything I have is in the patent.

Q. So that this patent is the only surviving document as to that work at that time?

A. As far as I know, that's right.

* * * * * *

11 PLAINTIFF'S EXHIBIT LLLLL.

* * * * * *

BURKE BERNARD ROCHE, called as a witness herein on behalf of the defendant, having been first duly sworn, was examined and testified as follows:

Direct Examination by Mr. Hume.

Q. Will you give your full name, Mr. Roche?

12 A. Burke Bernard Roche.

Q. Where do you reside, sir?

A. Oak Park, Illinois; 333 South Oak Park Avenue, Oak Park, Illinois.

Q. And your age?

A. 43.

Q. What is your occupation, sir?

A. The president of the Binks Manufacturing Company.

Q. How long have you been president of the Binks Manufacturing Company?

A. Since April, 1949.

Q. What is the business of the Binks Manufacturing Company?

A. The Binks Manufacturing Company is engaged in the manufacture of spray painting equipment in spray finishing systems.

Q. How long have you been employed by the Binks Manufacturing Company?

A. Since 1939.

* * * * * *

137 Q. Do you know of anyone who supplies equipment for the airless type of coating system using electrostatic field besides Ransburg?

A. One who supplies it, you mean?

Q. Yes, supplies equipment for a coating system where coating is conducted with an airless atomization procedure involving an electrostatic field for atomization and deposition.

A. Well, you are not talking, I mean, exclusive of us?

Q. Well, we know that the controversy in this suit is a question of your having something available for the market, so excluding your own availability.

138 A. No, I don't know.

Q. You don't know of anyone?

A. I don't know of anyone else at the moment, no.

Q. Have you ever heard of anyone else offering equipment for that airless type of system, offering it to the market?

A. No, I haven't.

* * * * * *

155 Q. What prompted, if you know, the decision to discontinue your experimentation along the lines of developing a compressed air type of system and deciding to experiment along the lines of an airless type of electrostatic system?

A. I left that up to our engineering and research staff. They were in charge of the project, and they made those decisions.

156 Q. So that somewhere along the line the decision was made to shift from any efforts to develop an air type over to efforts to develop an airless type, is that right?

A. We wanted, I might put it this way, we wanted a superior type. That is what we were looking for, something that was better than anybody else had, whether it was air or airless. That was the whole purpose of the project. We wanted to find an electrostatic method that was better than anybody else had. So I mean, I don't think you can necessarily confine it to whether it was air or airless on the decision to change. We didn't categorize it that way necessarily.

Q. I didn't mean to limit that or put words in your mouth. You were telling us that you did engage this outside help, is that right?

A. Yes, we decided to do that.

Q. What was your outside help?

A. Our outside help was Midwest Research Institute.

Q. They are located in Kansas City?

A. That is right.

Q. When were they engaged?

157 A. They were engaged in the early part of 1953.

Q. The early part, maybe January or February?

A. Around there, yes.

Q. Did you have a contract with them?

A. Yes, we had an agreement with them.

Q. Does the agreement set forth the nature of their research undertaking in your behalf?

A. Yes, it did as far as financially—it usually would give us some indication of what the cost would be for a designated length of time along with the equipment, of course, we might have to purchase.

Q. Did it specify the character of the type of system that you were seeking?

A. No, it didn't, I mean, we left that—it was their own findings, you might say. We just more or less gave them an open door on it, more or less for them to look in the subject deeply and see what they could come up with.

* * * * *

182 Q. Will you relate to us just what happened in your procedure of engaging them and what they did and what followed in this development of electrostatic systems for Binks?

A. Well, as I stated yesterday, we had been, prior to the time that we engaged the services of Midwest Institute, been interested in the electrostatic field and, besides that, we decided that it would be best for us to do some experimental work and, you might say, some pure research work in order to find out if there might not be effective means of spraying paint other than by means of compressed air, although if there was a means of even using compressed air that might be superior to the one we had and we were going to look into that, too.

183 Rather than attempting to do all the work ourselves, where we have so many demands on our time and with all the items we have which we are trying to improve all the time, we decided it would be best to get some outside technical assistance, which is a very common thing these days, a lot of industrial firms do it.

So we were acquainted with the Illinois Tech. here and we went to them, but they weren't able to take us at that time, and because of that fact, we asked for some recommendations. I think this was sometime in 1952. I can't designate the month.

They recommended Midwest Research Institute of Kansas City, which was relatively a new research organization but they had a good reputation.

We contacted them and they submitted a proposal which we studied and scrutinized and finally, after—I believe,

they came to Chicago first and talked the situation over with us and we decided to do some research work with them which was on a contract basis.

They submitted—well, I guess you would call it a formal contract.

• • • • •

237 Q. Well, now, what is it that you received from the Ford Motor Company originally?

A. We received a bid from the Ford Motor Company to quote on electrostatic coating equipment.

Q. Would that be—

A. That was according to Ford's specifications. That was in the latter part of 1955 when that was submitted.

Q. Had anyone in your company advised the Ford Motor Company that you were in the market to make such a quotation?

A. Not that I know of. It was just that we received this request for a quotation.

Q. But you had, prior to receiving the request for a quotation, demonstrated this particular piece of equipment, namely, the SK 661 emitter to the representatives of the Ford Motor Company?

A. Prior to receiving the quotation?

Q. Yes.

A. No, we did not.

Q. You did not?

A. No.

Q. So it is fair to say, then, that an unsolicited request for a quotation came to you through the mail

238 one day?

A. That is my understanding of it, yes.

By Mr. Hume: I will ask the Reporter to mark this group of papers Ransburg Deposition Exhibits 15-A, 15-B, 15-C and 15-D for identification.

(Thereupon said documents were marked respectively Ransburg Deposition Exhibits 15-A, 15-B, 15-C and 15-D for identification.)

By Mr. Hume: I will ask the Reporter to mark this next set of four papers as Ransburg Deposition Exhibits 16-A, 16-B, 16-C, and 16-D for identification.

(Thereupon said documents were marked respectively Ransburg Deposition Exhibits 16-A, 16-B, 16-C and 16-D for identification.)

By Mr. Hume:

Q. Mr. Roche, I hand you Ransburg Deposition Exhibits 15-A, B, C and D respectively for identification and ask you if you can tell us what those are, please?

A. This is a request for quotation by the Ford
239 Motor Company of the Binks Manufacturing Company for an electrostatic spray unit for Mercury and Lincoln exhaust manifolds. The date of the quotation is 12-1-55.

Q. That is the request for a quotation?

A. The request for the quotation, yes.

Now, do you want me to proceed on that?

Q. Yes. Tell us what the other papers are, the 15-B, C and D portions are.

A. Now, I just want to ask you one question here. I notice here that the specifications are dated the same as the request for quotation, but usually, the specifications are dated prior to the time that the request for quotation would be.

Q. You are referring to the date 11-16-55 that is on Ransburg Deposition Exhibit 15-D and the explanation you just made applies to that date?

A. That is correct. I mean, I presume that these specifications must have been submitted with the request for quotation.

Q. Well, did you, in response to the request for quotation, make a quotation to Ford Motor Company?

240 A. Yes, we did.

Q. Is that among those papers?

A. It is among these papers and we submitted, Binks Manufacturing Company submitted a quotation as of January 10, 1956. It is Binks quotation No. 56-26 covering the electrostatic paint booth and equipment for exhaust manifolds in accordance with the specifications as submitted by the Ford Motor Company.

Q. And that quotation is the document marked Ransburg Deposition Exhibit 15-C, is it not?

A. I believe that is correct.

Q. Is that the only quotation you made in response to the request for quotation?

A. No, it is not. We also submitted, on January 25, 1956, the Binks Manufacturing Company submitted an alternate to the Ford specifications covering similar equipment, the difference being that the Ford Motor Company guns and supports were replaced by three Binks electrostatic emitters, emitter field frame and supports. In other words, the alternate was according to Binks' specifications.

Q. Now I notice on the quotation that Binks sub-

241 mitted which is here as Ransburg Deposition Exhibit 15-C contains a provision that:

"The bid shall not be binding upon Binks Manufacturing Company as an offer unless and until the Ford Motor Company shall indemnify Binks Manufacturing Company and hold it free and harmless against any and all suits or causes of action which may be brought against Binks Manufacturing Company for infringement and/or contributory infringement of any and all unexpired patents by reason of manufacturing and furnishing to Ford Motor Com-

pany the device comprising the subject matter of said bid or by use by Ford Motor Company of such device."

That was a condition, was it not?

A. That is correct.

Q. And a similar provision was contained in the alternate bid that you refer to, isn't that right?

A. That is right.

Q. And on page 2 of Ransburg Deposition Exhibit 15-C, specific mention is made of the Starkey, et al. patent No. 2,685,536? That is correct, isn't it?

242 A. That is right.

Q. Were there any other letters or understandings other than these particular writings with respect to that bid or does this constitute the entire transaction?

A. As far as this transaction was concerned, as far as I know, this is complete.

243 Q. Now, I am going to hand you these set of papers which have been marked for identification as Ransburg Deposition Exhibits 16-A to -D, inclusive, and ask you if that is not another set of papers constituting a bid or a request for quotation from Ford and bid submitted by Binks in response thereto.

A. Yes, this was another transaction.

Q. Now, in the quotations given by Binks in response to this other transaction, represented in this set of exhibits, namely Ransburg Deposition Exhibits 16-A to -D, inclusive, the same condition of indemnification was included, isn't that correct?

A. Yes, that is correct.

Q. Now, in connection with this second transaction, were there any letters or understandings that you know of in connection with this transaction other than the papers that are represented in this exhibit?

A. The second transaction is covering equipment for the Cleveland Engine Plant No. 1. So far as I know, this is a complete record of the transaction.

Q. Now, were there any other requests for quotations from Ford or quotations given to Ford other than these two sets of transactions?

244 A. Those are the only two I know of.

Q. Were there any requests for quotations from anyone else other than Ford, at any time, for this type of equipment, that is, electrostatic coating equipment from Binks?

A. Not that I know of.

Q. No quotations were given to anyone else, other than these two?

A. Not to my knowledge.

Q. Now, did Ford ever give the indemnification required by Binks in these quotations?

A. My understanding is that Ford did not.

Q. Well, is there any doubt about that?

By Mr. Meroni: I must object to the question unless you are restricting it to Ford's dealings with Binks.

By Mr. Hume: Yes, I am talking about in response to these quotations.

By Mr. Hume:

Q. Did Ford ever indemnify Binks on the basis of the condition of these quotations that we have read here that you have identified?

A. Ford did not agree to the indemnification clause.

245 Q. Now, if there were other requests and quotations from anyone else or from Ford, and it is a fact that you said you have no knowledge of any others, who would know in your company if there were such others?

A. If there were any others, the parties at Binks that

would know would be Mr. George Cook of the industrial division there, Mr. Gustafsson, and Mr. Baur in the research and development department.

Q. Well, it is also very unlikely that you wouldn't know about it if there were such?

A. I probably would know about it, yes, because that is an unusual quotation and it would probably be called to my attention.

Q. After you submitted these quotations to the Ford Motor Company, as you have stated here, what happened with respect to those quotations, if anything? Did you ever supply any equipment or anything, under contract, to Ford in response to these quotations?

A. No, we did not.

Q. Did you ever hear from Ford specifically after sending these quotations in?

A. I didn't hear anything specific about it. I don't go to Detroit myself, usually, but some of our other 246 men do go who are acquainted with the Ford people, the people in our sales division, and the story I got from them is that Ford had decided not to go ahead. I definitely think—at least from what I heard from our own engineers—that the Starkey patent was a deterrent, so far as the Ford Motor Company was concerned.

Q. Who would be the individuals in your company that would have the first-hand knowledge of those discussions with the Ford representatives?

A. The party that mostly contacted the Ford Motor Company—we have more than one office; we have an office in Detroit; Ford is a good account, as are all the automotive accounts at Binks, we sell to the automotive industry, but, we have a sales specialist in Chicago by the name of Richard Hardy that frequently contacts Ford.

Many of our engineers, including Mr. Baur, have also been to the Ford Motor Company.

Q. Who would have been there in connection with the particular matter of these quotations and who could give us the facts of the conversations and reactions of Ford on this particular subject?

247 A. This particular quotation, I think it was mailed in to the Ford Motor Company. As far as remarks are concerned, I may have heard about how the quotation progressed and what happened to it, but those remarks were mostly hearsay, what I heard some of our people say, that Ford had decided not to go ahead with it.

I couldn't tell you specifically the name of the individual at Ford that said it but I did hear, from time to time, did pick up bits of information that was to the effect that Ford had decided to shelve it.

• • • • • •

256 Q. Mr. Roche, were you able to find out the date of your meeting in Detroit?

A. Yes, I was. The secretary of the company keeps a diary of events and I found that I went to Detroit to Ford on November 20, 1955.

Q. Now, I would like to get from you, please, sir, as complete as you can give it, an idea of the discussions that were had on the occasion of that meeting in Detroit.

What was the general burden of the discussions?

A. The general burden?

Q. What was the general nature of the conclusions?

A. Well, the discussions were — well, to start with, there was a patent discussion. Mr. Oster was a patent lawyer and we also had our patent lawyer present,

257 Mr. Desmond, from the firm of Gary, Desmond & Parker, and, as I recall, the principal part of the discussion was devoted to the Starkey patent which is a Ransburg patent, and to the validity of that patent.

I mentioned yesterday that there was considerable doubt

expressed as to the validity of the Starkey patent at that meeting.

Q. Who expressed that doubt?

A. Well, as I recall, both Mr. Oster of Ford and the people that represented Binks both were of that opinion.

Q. You mean Binks' attorneys?

A. Yes, and Mr. Baur also, who was present.

• • • • •

264 Q. Now, can you throw any light on why it was that the Ford Motor Company submitted the two requests for quotations to Binks for this equipment?

A. I don't know why they did and I have no idea as to why they did.

Q. Do you have any basis for knowing whether they had any knowledge of your development in the electrostatic coating field?

A. To my knowledge they had no knowledge of it, of what we had done.

265 Q. So far as you know, then, these two requests for quotations just came out of the blue without any factual foundation for them whatsoever, as far as you know?

A. That is right. There is nothing unusual about that. We had lots of requests for quotations of a special nature without any advance warning.

• • • • •

270 Q. Before this suit was filed, for how long a period had you had it in mind to bring this suit?

A. Well, as far as answering that question, I would like to say this, I wouldn't say that we had in mind 271 to bring the suit at all until at least we tried to work out an agreement by sending the letters in order to get a license from the Ransburg Electro-Coating Corporation. But in the exchange of letters we didn't make any progress at all, so it was only after we had received

these communications from the Ransburg Company that we thought that our only recourse was to bring the suit.

But I wouldn't say that I had premeditated the thought of bringing the suit. We had this equipment ready to produce and to sell, and we know that there is a good market for it, so consequently we felt we ought to try to utilize it, and the Starkey patent was in the way, was an obstacle to our doing this, so consequently we thought the best thing to do would be to see, first of all, we were going to try to get a license from Ransburg Electro-Coating Corporation.

That is why we started the correspondence, but we didn't make any headway, so we didn't have any alternative but to bring the suit.

• • • • •

296 Q. Now, how did Binks ascertain that there is a demand in the trade and in interstate commerce for the paint sprayer which they had developed and which they stood capable of manufacturing and selling?

A. There isn't any question that there is a very large demand for it and we know that from our relation with our customers.

Q. Well, that is a conclusion, Mr. Roche. I am asking you, what was done by Binks to ascertain the fact of that allegation.

A. Well, we have had, our salesmen have had inquiries for years concerning the subject of electrostatic spraying and they have asked us when we were going to get into it, because there isn't any question about the fact that there is a market for it especially where there is a heavy production in a plant.

These inquiries have come from all sections of the country.

• • • • •

318 Q. But you have no knowledge as to whether they conspired to do the acts that are charged in Section 33, do you?

I just want to remind you, Mr. Roche, that is a serious charge of conspiracy. You are a lawyer and you realize that, and you have charged a conspiracy with each other and with others, and I think we are entitled to know if you know who these others are, and I think we are 319 entitled to have you enumerate them.

If you don't know, it is very simple to say you don't know.

A. Well, I might put it this way: A client or a customer of Ransburg, if he actually wants the electrostatic method, he had no other choice but to conspire with them because he can't get it from anybody else. So consequently he would have to deal with Ransburg on it, and if he wants the electrostatic method, whether he likes it or not, he has to accept the Ransburg terms of the license. So in that sense, you might say that he is compelled to conspire with Ransburg if he wants the method. That is if he wants to use that particular method.

• • • • •

321 Q. We are not supposed to understand that your complaint here is to the effect that licensees of Ransburg are not free to buy Binks equipment?

A. I have never heard that licensees of Ransburg were free to buy anybody else's equipment, other than Ransburg.

Q. You end up here in Section 33 by saying:

"All to the detriment of the public and to the damage of the plaintiff."

How is Binks damaged by this circumstance that you have charged here?

A. Binks is damaged to a large extent because we are

prevented from producing, marketing and selling the
322 unit that we have ready to produce and sell, and it is a unit that we know would have a definite industrial market. Consequently, we cannot go ahead with our program because of the patent, the validity of which we are questioning.

So I would say that the damage is substantial, and in the future it could become more substantial.

* * * * *

344 Q. What facts, if you have any, are there that you can relate within your knowledge to support your statement that Ransburg insists that the licensees take their equipment? What have you got to support that, that is, facts?

345 A. Well, actually sometimes it isn't a question of insisting. It is just a question of what is practical and expedient. If it appeared to the customer that the only practical and expedient thing for him to do, that he was, you might say, practically forced into buying or into, you might say, leasing the Ransburg equipment or at least using, perhaps I should say, the Ransburg equipment, if that was really the only intelligent choice left open to him, it would appear to me that he was more or less forced into using the Ransburg equipment actually, even though the Ransburg management may not have deliberately insisted that he use it.

* * * * *

358 Q. Now, in this same allegation, Section 24 in the allegation:

"Capable of marketing on a large scale—"

and that you are ready to do that, I want to ask you, if you had succeeded in getting a license from Ransburg as you undertook to secure as the result of the correspond-

Gence held the past summer, as set forth in the com-
359 plaint, a license which was completely satisfactory to your own terms, what would you have sold? What would constitute the thing you would market that you would have ready for sale?

A. Well, as I understand it, you saw the demonstration the other day. I would say it was the equipment that you saw the demonstration of.

Q. Would you sell everything that you saw that was involved in that demonstration?

A. Yes, we would.

Q. For instance, the power pack?

A. Yes, sir.

Q. And the emitter heads?

A. Yes, sir.

Q. And the paint holding and feeding equipment?

A. Yes, sir.

Q. And all of the electrical connections to establish the electrostatic field?

A. Yes, sir. It would be an outright sale of those items.

Q. And the conveyer?

A. Yes, sir.

Q. And any booths that went with that?

A. The complete installation.

360 Q. So that that would be the thing that you are referring to here as being that which you were ready and capable of selling if you had gotten a satisfactory license from Ransburg?

A. Yes, sir.

Q. Are you prepared to produce and deliver that kind of equipment today?

A. Well, so far as we are concerned, there wouldn't be anything difficult about producing that equipment.

Q. Well, would you be ready to deliver it right now on an order, within a matter of weeks?

A. Yes, we would.

• • • • •

392 JOHN W. BAUR, called as a witness on behalf of the defendant, having been first duly sworn, was examined and testified as follows:

Direct Examination by Mr. Hume.

Q. Mr. Baur, will you state your full name, please?

A. John W. Baur.

Q. And your age?

A. 43.

Q. Your residence?

A. 630 Windsor Road, Glenview, Illinois.

Q. What is your occupation, sir?

A. Engineer.

Q. By whom are you employed?

A. Binks Manufacturing Company.

Q. What is your educational background, Mr. Baur?

A. I have a degree of mechanical engineering from
393 the University of Illinois, 1935.

Q. How long have you been employed by the Binks Manufacturing Company?

A. I was employed by them on July 14, 1941.

Q. Starting in 1935 when you got your degree in engineering, tell us just briefly what your work was from that period up to the time you became affiliated with the Binks Company?

A. I worked as a mechanical engineer on design work for the Johnson Fare Box Company.

Q. Starting in 1935?

A. Right.

Q. How long did that continue?

A. Until I left to become employed by the Binks Manufacturing Company.

Q. Straight through until 1941?

A. That is right.

Q. What were your duties with the Johnson Fare Box Company?

A. As an engineer in the design and development work, and also definite straight production engineering work.

Q. Did that include research work?

A. Yes.

394 Q. Are you an inventor, Mr. Baur?

A. Of a sort.

395 Q. Do you hold patents in your own name?

A. I do.

Q. About how many patents do you hold?

A. That is a hard question. I imagine at least fifteen, in that vicinity.

Q. What were your duties when you first went to the Binks Company?

A. I worked in development and design for the standard equipment.

Q. When you say "standard equipment," what are you referring to?

A. Spray guns, air and fluid regulators, oil and water extractors, pressure containers or paint containers, hose fittings, pumps. That would be a general cross section. There may be others which we do have in our catalog.

Q. How long did you stay in that particular job where you were working in development and design for the standard equipment?

A. I still in effect consult and work along with the individual people in the department yet.

Q. What is your present title?

A. Chief engineer, standard equipment.

396 Q. How long have you had that title?

A. Approximately five years.

Q. When you acquired that title, did your responsibilities change from what they had been?

A. Very slightly.

* * * * *

408 Q. Tell us what you know about the circumstances leading up to and the making of whatever decision was made to embark upon a research program toward the end of securing for Binks an electrostatic coating system.

A. Through the discussions that started back relatively early in the '40's, we finally decided after the press of the war and the retooling of a lot of our bigger manufacturers that we could spare and could have the additional time to put forth some effort in that, and I think we made the recommendation to management—

Q. When you say "we," who is "we"?

A. Mr. Gustafson, the head of the department, you could say, made the recommendation to management to allow an appropriation or allow us to spend the money to see what could be developed and made.

409 Q. What was the objective of the research to be undertaken, to get what?

A. A marketable method of coating objects in production regardless of whether it was electrostatic or any other method.

Q. You already had a very highly commercial method in the air guns that were being manufactured and sold at that time, isn't that right?

A. That is true.

Q. And this was to be different from what you then had?

A. It didn't necessarily have to be different.

Q. But improved?

A. Improved.

410 Q. In which direction was the line of improvement being sought: In the line of saving of paint or improvement of the coating that results?

A. I would say along both lines.

Q. Was there a real and existing need for improvement in both lines at the time?

A. I would qualify that and say there was in that in some cases the straight normal spray gun is very wasteful. In other cases, it does a very excellent and efficient job.

Q. It is true, isn't it, that taking the air guns by and large in total production there is a very substantial wastage of paint in their use? That is a fair statement, isn't it?

A. I wouldn't say substantial in that if the gun is handled right and proper effort put forth in the operation of it, the loss is relatively small.

Q. Have you ever run any tests that reflect the efficiency of the non-electrostatic compressed air gun application of paint on various types of articles?

A. In the actual comparison, I would have to answer that no. That is if you want a specific percentage

411 answer. In the case of appearance of the finished coat with the air gun with or without the field on, the difference in a lot of cases is slight.

Q. Have you ever run any tests that could tell us, for instance, if we are painting a particular kind of article, that the recovery or use of paint that is fed to the air gun, and I am speaking now of the regular type without any electrostatic field, that could tell you how much of that paint is put on the article and how much is lost as overspray? Have you run any tests that show that?

A. No. Actually, that is a very difficult test to run.

Q. It is very difficult, isn't it, to know precisely how much paint is being fed to the gun?

A. No, that can be measured.

Q. In what way is that test difficult? Why do you say it is difficult?

A. No. 1, any paint coating you put on must still be in a fluid condition in order to flow out, regardless of what method you put it on. Consequently, the loss in weight of solvents, if you wanted to weigh it to find out actually
412 how much you put on, would have to be taken into account, and you don't know what solvents were lost before it ever hit it regardless of what method you do use. If you could weigh it immediately upon spraying, it might be possible to get an accurate comparison.

Q. You emphasize that the paint in order to function as a paint coating must be deposited wet, and that it is going to subsequently dry, and that is the factor that makes this a difficult measuring process to carry out?

A. That is right.

Q. Is it fair to say then that as far as your experience is concerned that the measurement relative to the efficiency of these various paint deposition methods is very difficult to ascertain correctly?

A. To an accurate figure, it would be.

* * * * *

471 Q. Mr. Baur, I have just been handed a two-page memorandum which bears your name in typewriting at the end, and it is addressed to Mr. Burke B. Roche, dated November 5, 1956, and it is entitled "Expenditures on Electrostatic Project."

Did you prepare that?

A. I did.

Q. Where did you get the information that is on there?

472 A. The first one I received from our cost department who keeps records of our projects—

Q. Are you prepared to say, Mr. Baur, that to the best

of your knowledge and belief the information contained on that letter is correct?

A. Yes, I believe it is correct.

By Mr. Hume: I will ask the Reporter to mark this as Ransburg Deposition Exhibit 22 for identification.

(Thereupon said document was marked Ransburg Deposition Exhibit 22 for identification.)

• • • • •

517 Q. Did you do anything in between the two meetings that involved meeting with anybody from Ford?

A. No.

Q. So that the very next contact, you might say, you had with any Ford representatives was at the engi-
518 neering meeting that occurred in the afternoon at the River Rouge plant?

A. that is correct.

Q. And there were about two men on behalf of Ford at that meeting?

A. I believe that is correct.

Q. Do you know who they were?

A. I already answered that I would have to locate their names.

Q. Were the two engineers that you met among those that attended the demonstration of your SK-661 emitter at a later date?

A. I am not sure.

Q. So that reference to the list of the names of the representatives from Ford that attended those demonstrations would not help you?

A. No, it would not.

Q. How long did that meeting last?

A. Not over a half an hour.

Q Were all of the representatives from Binks that had attended the morning session present at the afternoon session?

519 A. Yes.

Q. What was said there in that meeting as near as you can remember, and by whom?

A. We showed them our print, explaining its operation, that it was far superior to the available units that were on the market or their design due to several characteristics of it, such as the paint is never exposed to the air until it is in the atomization zone; the particular pattern it produces is a fan spray that makes it easier to overlap, giving a better coverage in most cases; also that there was no centrifugal motion that acted to impart an additional velocity to the atomized particles.

They were all directed in the manner you wanted them.

Q. You mean in the sense of direction?

A. That is correct, with no velocity components.

Also, there was no mechanical motors or means necessary to turn these items which would also have to be insulated; variations in viscosity that we can operate with our type emitter are wide, while with the normal type of emitter they must be held close or good results are not obtained.

* * * * *

523 Q. So on the basis of what you regarded as known characteristics of the Ransburg system, you commented as to the desirability of your proposed Binks system or emitter, pointing to fundamental differences
524 in the two which touched upon and were germane to these operational features to which you have just referred? For instance, you have already said yours was not a rotating head.

A. That is correct.

Q. Was there any observation you made to Ford on the basis of that fact when the head proposed by Ford was rotary?

A. Yes, there was. We did point that out to them.

Q. I will ask you what difference that makes in the operation, in your mind?

A. No. 1, it requires a motor or a device to rotate it. It requires the ability to bring the power either to the motor or from the motor to the head and insulate against the high voltage.

No. 3, it does impart an additional velocity component on the atomized fluids that are coming off of the emitter.

525 Q. What feature of your proposed emitter did you point to which you represented would give you a better result on the ability to stop for a period and not have to clean up?

A. In that the paint or coating material is not exposed to the air until it finally reaches the atomization zone.

* * * * *

669 Q. Now, the next paragraph, 11, says:

"That the plaintiff"

and that means Binks here—

"in its marketing of spray equipment has ascertained that there is a demand in the trade and in interstate commerce for a paint sprayer which will electrostatically atomize paint without making use of air and, accordingly, fully developed a paint sprayer which it is capable of manufacturing and selling in order to meet the market demand."

Now, have you any knowledge tending to support the allegation that Binks has ascertained that there is a demand in interstate commerce for a paint sprayer of the airless type?

A. Very definitely, not only from a request for quotations which is of record in this case, but requests from many of our salesmen for something to offer in that

670 type of equipment.

Q. Do you know of any specific request and were they tied to the airless type as this allegation states?

A. Yes, they were tied to the airless type. The specific men that made the request, I would have to check to get the exact names.

By Mr. Meroni: Do you mean over and above the Ford one?

By Mr. Hume: Yes, over and above the Ford one. He said there were others, and we have a list of sales representatives here; would that help you in any way?

By the Witness: A request came in from most of the people. Binks has not accepted the requests and gone ahead and quoted or made any effort to quote on most of the—any of the requests, with the exception of the one.

By Mr. Hume:

Q. So, Binks has no knowledge as to whether any particular equipment could be sold or not?

A. On the requests, we knew if we could quote, we
671 would have a very big chance of selling.

* * * * *

1001 BENJAMIN J. HEDGER, called as a witness on behalf of the defendant, having been first duly sworn, was examined and testified as follows:

Direct Examination by Mr. Hume.

Q. Mr. Hedger, will you please state your full name and your residence and age, please?

A. Benjamin J. Hedger, 7107 North Nagle, Chicago.

Q. What is your occupation, sir?

A. I am sales manager for Binks Manufacturing Company.

Q. How long have you been sales manager for Binks Manufacturing Company?

A. Approximately two years.

Q. How long have you been employed by the Binks Manufacturing Company?

A. Approximately thirty years.

Q. Would you tell us what your duties were when you were first employed by Binks?

A. I was a salesman.

Q. That was thirty years ago?

A. That's right.

Q. In what capacity were you a salesman? What was your territory and what were you selling?

1002 A. It was the south side of Chicago, I was selling spray equipment.

Q. And when you say "spray equipment" what does that include?

A. Well, all types of equipment that the Binks Manufacturing Company makes, such as spray guns, pressure tanks, exhaust fans and hose connections, extractors and so forth.

Q. This equipment relates, does it not, to mechanisms for painting?

A. That's right.

Q. Was it used for anything else other than painting and coating?

A. Well, not exactly. There is oil coating and, in those days, why, we did do a little sandblasting, but, outside of that, it is mostly coating products.

Q. When you started thirty years ago, were you working directly for the company or for some jobber?

A. Directly for the company.

Q. To whom did you sell?

A. To whom?

Q. Yes.

1003 A. Well, to all in the industry.

Q. To users of the equipment?

A. To users of the equipment, that is right.

Q. Did you sell to jobbers?

A. In those days, very few.

Q. What were the changes, if any, in your position, leading up to the time you became sales manager? Just give us sort of a brief rundown of your progress and the evolution of your development, your position with the company.

A. Well, actually, from the point of salesman, why, I have been in all the departments, with the exception of actual manufacturing. I mean, I have been in the selling of the product. I have had charge of the ceramic division which is porcelain enamel. I have had charge of what we term the industrial division.

Then, I was district manager of Chicago for a great many years. So, most of it has been in sales, actually, up to the point of going into industrial sales manager. And, from there to general sales manager.

• • • • •

1035 Q. Well, now, did you have in your mind that the advent of Binks in the electrostatic field itself would make new business for Binks?

A. Well, it would create greater dollar sale, in my estimation.

Q. In other words, you would get into the business of selling power packs and the other things that were not then sold by Binks, is that it?

A. That is right.

Q. Well, when did this recommendation or suggestion by the sales department first come forward?

A. Well, I wouldn't say that it came directly from the sales department. I would say it came from the sales representatives when they would begin to hear of a new product on the market and we would be getting inquiries of why don't we do something, or, are we going to do something about this.

• • • • •

1042 Q. Mr. Hedger, I am going to call your attention to Section 9 of the pleading called cross counterclaim, filed by Binks. It reads as follows:

"The defendant, in granting such licenses under its inventions, including that of the aforesaid Starkey et al. patent, represents to the trade and in interstate commerce that it exclusively owns the patent monopoly for electrostatically depositing airlessly atomized (without com-
1043 pressed air) liquid spray particles."

Do you have any knowledge of facts that would tend to support that allegation?

A. Well, if I understand it properly, in calling on the trade, by which I mean the industry, the manufacturers, I know that the Ransburg unit is offered to them for depositing paint on their products. I don't know exactly whether that answers your question or not. For instance, No. 9—it is offered to them in a package deal, the complete setup with license and royalty payments and that I know from a number of different companies that I have personally contacted and also through my own salesmen.

• • • • •

1046 Q. Aren't you familiar with the fact that it is entirely open to the licensees to take a license from Ransburg of the type that was offered to the Binks Company where a license can be acquired without also acquiring any equipment from Ransburg?

A. No, I am not.

Q. You are not familiar with that type of license?

A. No, I am not.

Q. Does it surprise you that there was such a license?

A. Yes, it does.

Q. And you have never heard of it before?

A. No.

• • • • •

702 PLAINTIFF'S EXHIBIT MMMMM.

JAMES H. RICE, called as a witness on behalf of the defendant, having been first duly sworn, was examined and testified as follows:

Direct Examination by Mr. Hume.

Q. Mr. Rice, will you please state your full name, age and residence, please?

A. My name is James H. Rice; age 29. I live at 143 West Devon Avenue, Roselle, Illinois.

Q. What is your occupation, sir?

A. Engineer.

Q. Are you employed?

A. Yes.

Q. By whom?

A. Binks Manufacturing Company, Chicago.

Q. When did that employment start?

A. April, 1952.

Q. Would you mind speaking a little louder?

A. April, 1952.

Q. I apologize but we have all this racket around here. What is your educational background and training as an engineer, Mr. Rice?

703 A. I have a Bachelor of Science degree from the Illinois Institute of Technology. I majored in electrical engineering and—

Q. Did you have engineering experience by way of employment prior to your association with the Binks Manufacturing Company?

A. My schooling and my prior employment were, more or less, mixed together. I went to school during the night and, during the day, I worked. My father was a jobber for the Binks Manufacturing Company. During this time,

I dealt with both the engineering and sales end of the spray equipment business.

Q. Then your association with the activities of the Binks Manufacturing Company goes back prior to the time you graduated, isn't that right?

A. A considerable time.

Q. Have you ever been employed in any field other than the painting field or the equipment field that is occupied by Binks?

A. No, sir, other than part time jobs in high school and things like that, which I don't believe are involved here.

Q. When did you get your engineering degree?

704 A. In February, 1952.

Q. Following that was when you undertook full time employment with Binks, is that correct?

A. Correct.

Q. Immediately following that—it was in April, was it, in 1952?

A. Yes.

Q. What were your responsibilities with Binks when you first obtained employment with Binks?

A. I was initially assigned to electrostatic investigation.

Q. Do you know whether or not any investigation in the electrostatic field had been conducted prior to your employment there?

A. Yes, there was.

Q. What was the state of the development as it existed at the time you went there and were first employed?

A. The Binks Company had a power supply, a booth setup, a conveyor setup, and what I assumed was a complete copy of patents they obtained from a patent search previous to that time.

Q. Was any activity in progress at the time of your arrival?

705 A. There was some, but my assignment was to proceed on my own.

Q. Who was in charge of the program as it existed at the time you arrived?

A. Mr. Gustafsson.

Q. And did he have anyone associated with him, working on that project?

A. Mr. Knetel, Mr. George Knetel.

Q. Anyone else?

A. Mr. Baur and myself.

Q. Is he the Mr. Baur who is in the room and who testified this morning?

A. That is right.

Q. Anyone else?

A. The machinist and the rest of the group in the shop, from time to time, would help whenever it was needed, with whatever was needed.

Q. Now, what had been accomplished, as you observed it at the time of your arrival to start your employment?

A. I would say the status up to the time of my arrival had been, more or less, investigation and there was no real, concrete progress that had been made.

706 Q. Did I understand, then, they had not developed any equipment that was being used?

A. No, sir.

Q. Were they working at that time on electrostatic systems employing air or systems employing no air for atomization?

A. What is commonly known as the air type, the air atomizing.

Q. Is it correct to say they had not, so far as you know, up to that time, undertaken any airless type of atomization in the electrostatic field?

A. So far as I know, no.

Q. Now, what were your instructions and from whom were your instructions obtained?

A. Mr. Gustafsson and Mr. Baur more or less worked very closely together, so, my instructions came, mostly, from both of them together. In other words, there would be an informal discussion and we would decide which way to begin.

Q. Who actually hired you?

A. Mr. Roche, Mr. Burke B. Roche.

Q. Had you had any experience in working in the field of electrostatic coating prior to your employment at
707 Binks?

A. As far as selling to customers that had electrostatic installations, I had seen them and helped with them, yes.

Q. Well, had you sold to customers who had electrostatic installations?

A. Yes, sir.

Q. Was that an extensive experience or just less than an extensive experience?

A. I don't understand your question.

Q. Well, had you had a rather extensive experience, an insight through contacting many such users of electrostatic equipment or was this just an odd, remote experience that didn't give you a great deal of contact with it?

A. I would say it gave me contact in that I was studying the electrical engineering at the time I was making these contacts and I was deeply interested in the field, in that it was in my area of interest.

Q. You were, in a sense, representing Binks at that time, weren't you?

A. The way my father and I were operating at the time, we were representing ourselves and selling Binks
708 equipment.

* * * * * *

734 Q. Now, prior to May 7, 1953, had you done any work or testing on behalf of Binks with a system

735 employing the airless type of atomization? In other words, the No. 2 type as distinguished from the so-called No. 1 type?

A. What do you mean by "a system"?

Q. Well, a setup which would effect such atomization and coating.

A. Well, I say at no time in this period were we effecting a coating. We were interested in a device.

Q. It was the purpose of the device to accomplish coating, however, was it not?

A. That was the purpose of the device but, at no time did we attempt to distinguish this thing as a system, since we were only after a device.

Q. In other words, even though your total problem would involve, first, obtaining atomization?

A. Correct.

Q. And, as a second problem, causing that atomized mass of coating material to deposit as a coating. You, at this stage of the game were only concerned with the problem of a device for creating the atomization; is that what I understand?

A. That is correct.

736 Q. And you were not undertaking to determine how well it might coat?

A. We did not consider the second part of that as a problem. We considered that as having already been solved.

Q. You never recognized that as a problem?

A. No, sir.

Q. Not to this day?

A. We have found that once we have established the atomization and the charging, the second part of that is not a particular problem. It has already been solved and taken care of in previous coating systems.

740 Q. What were the consequences of these tests? What did they yield from the standpoint of your own observations and Binks' as the recipient of this in-
741 formation?

A. Well, in my own mind it merely substantiated the fact that electrostatic atomization was feasible and it was not particularly difficult to obtain.

Q. Well, it is true, isn't it, that at that time you had seen a Ransburg No. 2 system in commercial operation?

A. I believe I had, yes, sir.

Q. Did you try a disk type of emitter?

A. No, sir.

Q. In those tests?

A. No, sir.

Q. You knew of a disk type of emitter, didn't you?

A. No, sir.

Q. Hadn't you seen a Ransburg disk type of emitter at that time?

A. They didn't have a disk type emitter at that time.

Q. Did you try a bell type of emitter?

A. No, sir.

Q. But you had seen a bell type of emitter?

A. Yes, sir.

742 Q. Is there any reason why you didn't try a disk type?

A. No, sir.

Q. You just didn't think of it?

A. There was no reason to try something that was already there.

Q. Well, you knew there had been a disk type of emitter before?

A. A rotating cup is what they had used at that time.

Q. Well, is it fair to say that you regarded that as the Ransburg type and you weren't going to use it because

it was their type; you were going to try to get something else? Is that a fair appraisal?

A. No, sir.

Q. Well, is there any reason why you didn't try the bell type?

A. We felt, or, rather, I felt that it was too complicated.

Q. Well, you knew the bell type worked pretty well?

A. I had known that it was in the field, yes, sir.

Q. And you were trying to find other ways that it 743 might work, is that it?

A. In my mind, this was an investigation; not a matter of going out and taking someone else's work. We were investigating for our own information. Now, as far as we knew, that bell was working by centrifugal force.

Q. Did you report any of this work to the officials at Midwest in your initial report?

A. We made no reference in that report to any of our concrete work or anything we had actually done. We left it, actually, open to them so we wouldn't be influencing their thinking in advance.

Q. When did you first see a bell type of No. 2 emitter in operation?

A. Again, I can't say exactly when.

Q. But, you know it was prior to the time you ran these tests you have referred to, or, it came in that four month period in the latter part of 1952 and early 1953?

A. I knew of its existence. I do not know exactly what time it was, whether it was prior to my employment at Binks or afterwards, that I saw an actual installation.

Q. Did you understand how the bell type of emit- 744 ter worked?

A. I believe I did.

Q. What was your understanding as to how the paint was fed on the surface of the bell?

A. It was fed to a rotating cup, a centrifugal force held the film against the cup until it fed out to its edge.

Q. Do you know how fast the bell would rotate?

A. At that time I did not have an exact figure. I did not know how fast it could have been. They had quite a few speeds. I had no information as to the speed of that bell.

Q. What was your understanding at that time as to whether or not the centrifugal force had any effect on atomization?

A. It was my feeling at that time that if the speed was high enough, there would be a certain amount of atomization, due to the motion of the cup.

Q. And if it were below a certain speed?

A. There would still be a component. How much it would affect the atomization, I have no way of knowing.

Q. Do you have a feeling or an understanding that
745 any rotary motion would exert a component affecting atomization?

A. I don't think I would go out that far, but it would affect it in some way. Now, you are taking rotary motion. Rotary motion of what?

Q. Of the bell, I am talking about.

A. Of that cup?

Q. Yes.

A. I would say, at sufficient speeds, it would.

* * * * *

760 Q. Mr. Rice, I would like to develop a little further, if I may, some information from you regarding some of the things we touched on this morning.

You recall, I am sure, that you mentioned that during your experimental work at Binks prior to May 7, 1953, that you tried several forms of atomization of the airless type and I think you said that you conducted experiments with a knife edge emitter. Isn't that correct?

A. That is correct. That describes it as close as anything.

Q. Well, now, the only thing I am seeking to do now is to get a better picture of what that experiment was.

What is it that you call a knife? How is that constructed?

A. A knife. That is—

Q. Well, now, I don't mean to be difficult. How
761 did you feed the coating material? Was it a hollow knife or was it a solid knife and you fed it on the surface? Will you direct your answer to things of that kind so we will get an idea of what we would witness if we saw it?

A. I mean, do you want sort of a background of how it came about?

Q. I want a word picture as to what it would look like if we saw it.

A. Well, it is a simple thing. It was an ordinary knife blade and paint was either placed there or dropped there. In other words, it is feasible that this experimental work could be carried on by merely laying the paint on there and putting on the voltage which was connected to the knife.

Q. Do you have any drawings or descriptions of these tests that could be supplied to us?

A. No, we don't. The matter came from some of the patents that I had looked at during this investigation. There were references in several of these patents of different devices where they got emission—in other words, emitters of a type that emitted different materials onto a grounded
762 plate and this was merely an expression of our idea of some of these patents we got.

Q. Well, now, you actually did, as I understand your testimony, conduct an experiment utilizing a knife or a knife edge, did you not?

A. Yes.

Q. And what did you use for a knife?

A. A piece of spring, a flat spring steel.

Q. Was it thicker at one part than at another?

A. I would say it was a flat piece, as I remember, about a half inch wide and about 10 mills thick.

Q. And was it of uniform thickness throughout its width?

A. Yes. It was just a flat strip. It was clipped off of a roll of strapping material. I mean, if you are familiar with Signode strapping, it was just a piece of steel.

By Mr. Hume: Pardon me. May I have a five minute recess, gentlemen?

(Thereupon a short recess was taken.)

By Mr. Hume:

Q. Mr. Rice, as I understand your testimony, this 763 so-called knife was just a flat blade of uniform cross-section?

A. That is correct.

Q. And how long was it?

A. Well, about five or six inches, I do not recollect just—

Q. Did you actually utilize this as an emitter in conjunction with an electrostatic field and cause it to function?

A. I used it to produce electrostatic atomization.

Q. Well, now, how did you bring that about? How did you mount the blade?

A. I just mounted the blade to a clamp which was insulated from the ground, connected a high voltage source to it.

Q. Just a minute. Was the blade vertical or was it horizontal?

A. It was laying horizontal.

Q. Horizontal. Did it have the edge facing toward the field?

A. It was the field. There was no facing the field.

Q. It was the electrode?

A. It was the electrode in itself.

764 Q. The blade was charged, was it?

A. Correct.

Q. Did you have any opposite electrode at ground potential?

A. Other than that which is normally in the atmosphere, the earth, no, or the building.

Q. You didn't have anything that would correspond to a piece of material to be coated?

A. No, no. Like I said before, our primary investigation was on an emitter or source of atomization. We had already felt fairly confident that the process of deposition was an entirely different factor that wasn't involved in this. We were really working on an emitter, so that the object itself to be coated was not necessary to this operation, and we followed our investigation along that line.

Q. So, you didn't undertake to set up an opposed electrode, as such, in relationship, space relationship to the emitter?

A. No, we did not.

Q. Is that true of all these experiments that you ran prior to May 7, 1953 in connection with the airless type of emitter? I mean, is it true that in all of those instances

765 that you did not use an opposed electrode at ground potential in spaced relationship other than the atmosphere and the surounding objects?

A. No; there were other times when I would put something out there to see what its influence was; sometimes grounded and sometimes not.

Q. But, in connection with this knife blade, you did not have any objects there?

A. No, sir, not when you define that as an object to be coated.

Q. Well, an object that would occupy the electrostatic

relationship that would exist when you had an object there to be coated.

A. Well, there we would have to get into a definition of an electrostatic field and what another electrode is.

Q. Let us simplify that. You will admit that any commercial application of this principle would involve an object to be coated, isn't that right?

A. What principle? I mean—

Q. Of the coating system of the type that you were exploring and trying to devise.

A. We were not trying to devise a system. That was as I said before, known to us. There was no
766 question. We had no doubts about electrostatic deposition at all. That was known, so far as I know, for the past twenty or thirty years.

• • • • •

813 Q. Now, was there any time prior to the actual achievement of the slotted disk emitter that you settled on the conclusion in your own mind that the slotted form was preferable to any other form?

814 A. I can't pick out any time, no.

Q. Well, do you recall that as a conclusion you reached at some time in the past?

A. What we were looking for was a simple device that could be made that could be manufactured easily, that wasn't clumsy and didn't have the moving parts of anything that was in existence on the market or anywhere else ond this emitter, you might say, evolved and it was shown to us it was a very simple device to make.

• • • • •

816 Q. What other factors come in when you are dealing with a commercial operation?

A. The resultant coating of your object and, in this particular application, we come into your drying effect that you were talking about before, which we noticed, actually,

the opposite of what you were inferring this morning as to a drying effect; we found there was less drying effect with this particular type of emitter.

Q. With this particular type of what?

A. With this particular type of emitter there was less loss of solvent.

Q. Than compared to what?

817 A. Than compared to any system, any atomizing device that we had used before.

Q. You refer to the air type of atomization?

A. The air type. That would be about it, right now.

Q. You don't mean any other, airless type of atomization?

A. In regards to the Ransburg system, I did not have any exact information other than what I had observed in installation. I was not free to walk into Ransburg's installation and start taking data and running tests on their equipment. I think you will realize that. But, from having observed results, we were much more successful with our device than anything we had seen.

We could operate over a much wider range of viscosities than was experienced by Ransburg. They had to use metering pumps to supply their airless type system.

Q. Well, now—

A. They couldn't use a standard circulating system or pressure regulators that we had used in our line. They

818 even requested us, at one time, to make up a special regulator to operate at the low pressures that they needed. The regulators you saw that we had used with our system are the standard type we have been using on our circulating system for years.

In other words, we could operate our device with existing equipment with very little modification. As you saw in the demonstration in our plant, the emitter was actually at-

tached to a standard automatic gun that has been in our lines for a number of years.

822 Q. How is this disk construction arrived at?
823 When you started on the program of reducing the so-called slotted emitter to practice, how did it evolve you got onto the disk and how did that come about?

A. Well, we more or less tried to simplify what is apparently a simple phenomena. In other words, it was my thinking, because of the simplicity of the factors involved here, that a complicated mechanism would not be necessary. And, as some of the emitters that have been submitted and that we have worked with were getting out of hand, it was obvious that we, as well as everyone else that we had seen in the field, were making very cumbersome and complicated devices, to make a very simple device work—in other words, knife blades work, needles work. You put paint on them and they work. Why all this rotating business?

During this thing, with the patent that is involved in here, the Starkey patent hit us when we were well along and this was much further than when we were out here (indicating). We were completely surprised by this because it has never to our knowledge, been put to practice. The
824 device they showed there, I would say, looks very crude. And, the devices of our investigations led to the thought that this was all too complicated and, as a r[illegible], we simplified everything down to only what we needed for an emitter. In other words, we reduced it to its simplest form and, as a result, we came out with an emitter that in all respects is simpler, has no moving parts.

I think the ordinary layman, in other words, an inexperienced hand in the shop, could handle it, could wash it, could assemble it, could maintain it.

835 Q. Well, yes. Now, is it not true also that comparing the type of procedure wherein you electrostatically atomize in an airless fashion and use an electrostatic field for deposition in conjunction with that that you again effect a substantial savings in paint where that system can be used over the type where air is used in the atomizing which has been referred to as a so-called No. 1 type of system?

836 A. Well, I will answer that in this way: Considering all three systems that seem to be involved in here, the air atomizing spray gun alone is one system, the air atomizing gun employing an electrostatic field, and a system employing SK-661—there are items that cannot be sprayed by all three of those systems satisfactorily. Any one of those systems might be more efficient for a particular job. In other words, if you pick out one specific item, I will say now that one or two of those systems mentioned would be applicable and maybe one or two of the remaining, depending on what it is, would be absolutely useless.

I have seen installations of the electrostatic type where the touchup that was required meant that the man doing it could have done the whole job with the same amount of paint he was using to do the touchup.

We are getting to the point, in answer to your original question, of why we didn't enter into the air gun electrostatic field alone.

The fact is that of any one of these systems, it could 837 not generally be said, "This is the cure-all." Or "This will do everything." We have had in our plant, on automatic jobs, articles that we could paint that electrostatic systems have been set up for and from our figures that we could see, we couldn't see where the savings were. There were other jobs where there were savings. So, when you ask, wasn't one system superior to another, you would almost have to take a specific installation.

840 Q. Do you think there is any advantage in going to the electrostatic operation at all, then?

A. Yes, I do.

Q. What are the advantages?

841 A. There would be advantages in the instances where the object or the installation involved fits it. It is my opinion that the system—

Q. Was that a large segment of the painting activity in the country or a small segment?

By Mr. Meroni: I don't believe he finished his answer. He started to say he had an opinion. He started to offer his opinion.

By Mr. Hume: I did not ask him for his opinion.

By Mr. Meroni: I believe you did.

Miss Reporter, will you please read the question?

(Thereupon the question was read as above recorded.)

By Mr. Hume:

Q. All right. Proceed.

A. It has been our feeling that the main trouble in the electrostatic field today is the attempt to do jobs entirely by a single system. In other words, people will put in one system, say, of an electrostatic type and they will try to do the entire job with that. It was our feeling from the

842 beginning that a blending of the systems available would be more satisfactory and that is the reason we attempted to develop the emitter of the SK-661 type, so that when we entered into this field, we would be offering the customer a complete job. In other words, there would be no holes; if it couldn't be done by one method, it could be done by another and if it needed a combination of two or three, it would be there to give to them, it would be given to them in an outright sale, which, also, we thought, was an advantage. In other words, we would be selling them the entire unit.

849 Q. You have got the information on the highest efficiency under proper conditions that could be realized with the SK-661?

A. I have an estimate in my mind, yes.

Q. What does that come to?

A. Close to 99 per cent.

Q. Is there any reason that you can think of that you would expect the Ransburg system to be any different than that?

A. I have no reason to expect it would be as effi-
850 cient as the SK-661.

Q. Do you have any reason to think it would be less efficient?

A. The reason it would be less efficient is because—

Q. (Continuing.) If it is less efficient.

A. (Continuing.) —of the ease with which the SK-661 emitter can be set up and arranged.

Q. Well, does that touch upon its performance in discharging and emitting paint? This is in paint savings.

A. No.

Q. Well, that is not germane to the economy we are talking about, then, is that right?

A. You are talking about emitting systems, emitters. I am saying that we are able, with the emitter of SK-661, to place it in a much more flexible position, so far as the position of those emitters with relation to the work. It can be done so much easier and those emitters can be placed in many positions which the Ransburg system would find it rather difficult to do.

878 Q. Well, what do you consider as essential in handling the mass of coating material in getting it in the presence of an electrostatic field such as you have been using in these tests, to make it atomize? I mean, could you, for instance, cause it to atomize right out of a bucket?

A. I don't think I would be able to, with present equipment, but it would not be impossible. I do believe that you could produce enough voltage to atomize the bulk of material and that it would do it.

879 Q. Do you think you could dip a sphere of one foot of diameter into a body of paint and electrostatically atomize off the surface of that sphere?

A. If I had a high enough voltage, I would.

Q. You have never tested anything like that?

A. One foot in diameter? No, but I observed it on smaller diameters.

Q. Did you ever make a liquid mass pass from a solid liquid phase into an atomized phase from the surface of a sphere, a spherical object?

A. Not intentionally, but I observed it occur.

Q. What kind of a spherical object did it occur from?

A. If you will look at the drawing of the wire emitter we have on Exhibit SK-509, I believe it is—

Q. I hand you a drawing SK-509 which is marked for identification as Ransburg Deposition Exhibit 26. Is that the drawing to which you refer?

A. That is the drawing to which I refer. Now, this is one of the instances I have seen this occur in. On this you will notice there is a ball shown in the upper and lower ends of this wire filament, we call it.

880 Q. What would you say the diameter of that ball is?

A. One inch.

Q. And what was it made of?

A. It was brass.

Q. Yes, sir.

A. Now, the way the material was brought into this device was: It was fed in at the top and through the wires and the wires held it by surface tension between them. Now, as you can see, if too much material flowed down, it

would get all over this lower ball. Under the influence of electrostatic field, this produced a phenomenon I have observed before I came to work for Binks, on the detearing process, which was also from a more or less rounded corner of a box, a metal box, where the material from the force of the electrostatic field was pulled off and it atomized, which is the same phenomenon we were dealing with on the emitters. In other words, it actually deteared from this surface and behaved exactly the same as the material operating off the wires.

882 Q. Now, within the commercial limits of voltages that can be used in actual practice, in order to get enough points to produce a spray of paint, or coating, such as will give you a workable, usable pattern for coating, it would be necessary to have something like a slot or film producing construction of the emitter, wouldn't it?

A. You need to produce in this atomizing voltage, gradient sufficient to break this material up. The voltage gradients are obtained by applying voltages to different classes of emitters and it has been known that whenever you create a sharp point or edge, you get a very high voltage gradient in the region of that sharp edge.

883 This voltage gradient has been estimated by some in the millions of volts per inch but it only exists in a very minute space away from the edge, in other words at the edge. How far it extends, is a very minute quantity.

So, our attempt here is merely to bring the material into a region of a high voltage gradient. Now, the problem has only been to create a geometric or physical condition that creates this high voltage gradient.

Q. In these tests that you conducted—

By Mr. Meroni: Let him finsh his answer.

By Mr. Hume: I thought he was finished.

By the Witness:

A. (Continuing.) Once we have this high voltage gradient, the next problem is merely to bring the material into this region. The problem of atomizing the liquid by the voltage gradient is not existent. In other words, once it gets in there, barring the makeup of the material—I mean, we do have viscosities and, too, different types of material that react differently under electrical fields but,

884 the normal run of materials that we have been dealing with and that we have had experience with, and as has been seen in the literature—once it has been in this electrical field of a high enough intensity, it will discharge, it will break up.

Now, the slot was a simple way of obtaining this. We created the sharp edge. We created a method of bringing the material into this field. Beyond that, the nature of the electrostatic discharge in fields, took care of itself, which has been practiced with precipitrons and other devices of that nature for a considerable number of years.

* * * * *

886 Also, with an emitter where you form saw teeth or points, you tend to fix where the emission takes place at these points.

When you use a straight edge, the emission takes place because of the nature of the voltage gradient there. The material itself that is fed into it, it is independent, it is not fixed. Now, if you put many points close together, their effect is lessened.

Q. They tend to approach a straight edge?

A. Yes.

Q. Is it compatible with your understanding that the coating material itself becomes a part of the electrode and as the points tend to form on the edge of the projecting film, that they themselves constitute these points, although they are fluid points and not fixed mechanical points?

A. No, I do not. I believe that they are part of
887 the discharge. I can clarify that more. If you take a standard electrode in air and subject it to high voltage, you get what is known as a corona discharge. This discharge forms in points. These points are not part of the electrode. We now introduce a fluid, air as a fluid—it is considered such; it is a gas form but it is a fluid. We now produce another fluid. It happens to be in what we normally call a liquid state.

Now, I can't draw any conclusion and say that because it is in this liquid state that it has become part of the electrode. It is more of my feeling that this liquid has entered into and has become mixed with this discharge and is part of the discharge rather than part of the electrode itself. The electrode is not free to move in our normal way of looking at things. It is solid. It cannot move. It cannot take place in the discharge.

* * * * *

903 Q. I will call your attention to the fact that the patent issued on August 3, 1954.

Now, you say that was brought to your attention, and, what was the result of that?

A. Well, it was given to me to read and I read through it and I didn't see where it pertained, because the nature of the device shown there is so completely different from what we had and what we were coming out with—it was cumbersome. I had never seen anything like it in the
904 field used before that time and since that time and it has not been used by Ransburg extensively in the field, to the extent where there would be any notice of it given. I don't doubt that they might have used it in their lab, I don't know, but, I don't know of any commercial application of it and my reading of this thing gave me no cause to see how it pertained. However, I am not a lawyer and do not understand the claims that were made in

this thing, as far as the sentences are quite long in the claims and it was explained to me that the project would be more or less held up until further investigation was made of this patent.

Q. Did you recognize that that was a patent covering a method and not limited to mechanism?

A. I don't recognize it as any type. In other words, I am not that familiar with patents to say this is—to me, it has pictures of a device that to me was very impractical, could not be applied in practice as successfully as what we had. And it did not occur to me that there was any method involved here. So, when you talk about a method pat-
905 ent, I really couldn't see that at all.

Q. Now, did you make any recommendations to your company after reading that patent?

A. I was not asked to make a recommendation. Patent matters are not in my jurisdiction. I do not have anything to do with the patents. My question was to look at this and, as an engineer, as having designed this equipment, compare what I saw with what I had. Where are the similarities? And where are the differences? It was my opinion that what is shown here, in practice would not work. I would say that since we recognize the fact that electrostatic atomization occurs when you put a high voltage—you create the high voltage field. You put the paint in the high voltage field and you get electrostatic atomization.

I will admit they get a high voltage field and get electrostatic atomization, but I don't see how the device can be maintained and controlled in the construction they show in this patent.

• • • • •